

# RECORD COPY

Indian Institute of Public Administration

Centre for Training and Research in

Municipal Administration

New Delhi

Seminar On

Building Bye-laws, Zoning and

Sub-division Control

(March 11 - 12, 1969)

March 11, 1969

Afternoon Session

Chairman: Prof. R.B. Das

The Chairman requested Shri G.B. Krishna Rao from the School of Planning and Architecture, New Delhi to present his paper on "Development Control through zoning laws, sub-division regulations and building bye-laws". Shri G.B.K. Rao said that almost all the cities and towns in India have grown under the municipal acts. Town Planners from time to time have suggested that the Registration Department should ask for, a certificate of land sale in order to prevent fragmentation of property. He added that existing municipal acts have also to be amended for this purpose. The term "Zoning" land is generally understood to refer to designating the land for a particular use or uses. It is primarily an American innovation. It has not been practiced in U.K. where development control is exercised directly through the town development plans and under the provisions of the town planning act. In India zoning laws are relatively unknown and usually there is no statutory basis for enacting zoning laws. He further mentioned

that the objectives of zoning are achieved to some extent in some towns in India by framing suitable bye-laws. Larger metropolitan cities like Delhi, Calcutta etc. could have zoning bye-laws. For the smaller municipalities, it should be left to their discretion as zoning is both sophisticated and costly. Due to paucity of funds and technical staff it may not be wise to make promulgation of zoning laws obligatory for all Indian cities. But adequate provisions must be made either in town planning acts or in the municipal acts empowering the local authorities to enact zoning laws wherever they are in a position to frame and enforce them.

The subject was thrown open for discussion.

One of the participants explained the problems prevailing in Delhi like misuse of residential areas, violating building bye-laws, frequent stay orders of courts etc.. He said that the implementation of the Delhi Master Plan was delayed due to the non-finalisation of the zonal plans. He was of the opinion that we do not synchronize the different facts of the layout implementation. There will be a homogeneous growth of the new colony if plots for community services are handed over to the concerned authorities by the private colonizers.

Another participant was of the opinion that the city improvement trust board should develop the land and hand it over to the municipalities after houses had been constructed.



Another participant was of the opinion that performance approach and architectural control should get our attention.

One participant said that there should be some special building bye-laws for special needs.

Another participant was of the opinion that it was just not possible to have a Master Plan and then break it into zonal plans. The bye-laws should be so simple that the implementing agencies do not find any difficulty in execution. The approach should be positive and not negative.

Indian Institute of Public Administration  
Centre for Training & Research in  
Municipal Administration  
New Delhi

Seminar On

Building Bye-laws, Zoning and  
Sub-division Control

(March 11 - 12, 1969)

Morning Session

March 11, 1969

Chairman: Kumari Surrendar Saini  
Sr. Vice-President  
New Delhi Municipal Committee  
New Delhi

Summary of Proceedings

The Seminar was inaugurated by Shri Hans Raj Gupta, Mayor of Delhi. While welcoming the chief guest Dr. Khosla Director, I.I.P.A. said that these building bye-laws are there in the Municipal Acts, but they are not being properly enforced.

Delivering the inaugural address, Shri Hans Raj Gupta to the Master Plan of Delhi and said that there are several lacunae in it. Several things were not considered at the time of preparation of the Master Plan. He also said that the construction of a new town is easier than changing the old towns. He said that in the matter of zoning, the existing localities are bound to create a lot of difficulties. Sub-division differs from area to area. He further said that the building bye-laws deserve a lot of modifications and change. The building bye-laws in Delhi <sup>been</sup> has/slightly modified to allow

certain repair work to be carried on.

While proposing a vote of thanks Prof. G. Mukharji Director (CMA) said that the laymen (elected councillors) and the technical persons generally appear to be opposed to each other. Modernisation, in his view, does not mean making it more sophisticated but it only means making the devices more rational. While saying that the people in the low income groups are unable to construct houses, he posed a question, whether it was necessary to change the building bye-laws so that the poor citizens can also construct the type of house that they can afford.

On the request of the Chairman, Dr. B.D. Raheja presented a paper on "Sub-division Regulations, Zoning and Building Bye-laws". Emphasising the importance of land use plans, he pointed out that in India, city and regional planning is gaining increasing recognition. He further said that new housing requirements, new building techniques, new land uses, new human needs require new building bye-laws, zoning and sub-division codes. He mentioned that in the presence of multiplicity of acts, rules and regulations, it would be impracticable to have a hard and fast rule governing the relations between the deliberative and executive agencies.

Next, Shri P.B. Rai of the Town and Country Planning Organisation presented his paper on "The Place of Zoning and Sub-division Control in Municipal Administration". He pointed out that the function of land planning was to ensure that the land uses indicated in the land use plans are developed

to promote public health, safety and general welfare of the community and land is utilised in the most appropriate and economical manner. Zoning and sub-division regulations themselves cannot guide the development of a city. These zoning and sub-division controls need not be enforced in a strict way. The qualitative aspects of zoning need greater attention rather than the quantitative aspects.

Thereafter, Shri S.K. Dutta of <sup>the</sup> Calcutta Metropolitan Planning Organisation presented his paper on "Selected aspects of sub-division Control in an urban area". In his paper he took the example of Calcutta as a case study and explained the objectives in planning, housing areas. He explained the problems associated with the physical development of an area and suggested some approaches to achieve minimum standards of development.

The subject was thrown open for discussion.

One of the participants said that the correct appraisal of the realities is not taken into consideration by the planners thus creating difficulties at the time of implementation. He mentioned that planning for new areas should be different from replanning the old areas.

Another participant referred to the situation in Bombay. He explained how they were successful in securing public <sup>participation</sup> cooperation. He stated that in Bombay the development control rules are strictly observed.

Seminar on  
Building Bye-laws, Zoning and Sub-division  
Control

(March 11 & 12, 1969)

Need for Reformulation and Quantification of Basic  
Concepts in Respect of Building Bye-Laws

by

Dr. C.M. Palvia  
Joint Director (Socio-Econ.)  
National Buildings Organisation

Indian Institute of Public Administration  
(Centre for Training & Research in Municipal Administration)  
New Delhi.

Need for Reformulation and Quantification  
of Basic Concepts in Respect of Building  
Bye-Laws

---

Rapid growth in population, faster rural-urban migration and devolution of more and more functional responsibilities of private sector makes it incumbent on Central, provincial and local governments to bring about structural changes in the regulatory laws. This aspect needs more attention in the case of regulatory powers of the local administration primarily because local laws influence and regulate form and pattern of fixed assets. It is true that modifying or amending regulations in respect of traditional activities have deep-rooted inhibitions and this is highly conservative in case of fixed assets which have remained as part and parcel of the human civilization, i.e., the residential assets followed by non-residential assets. In early stage of civilisation as a matter of fact residential assets perhaps were the only fixed assets.

2. Building construction is a form of long-term capital investment and traditionalism becomes the bane of this particular sector. However, the pressure of economic and social forces, the changes in the levels of supply of buildings both residential and non-residential as well as the structural metamorphosis and the demand aspect oblige the governmental regulating institutions to modify the existing systems to satisfy the current requirements. Ultimate objectives of these modifications is to place the optimisation of resource utilisation for housing and building production by bringing

about technical and institutional changes in regulatory laws.

3. Building bye-laws, zoning and sub-divisional controls are the legal fists which are difficult to be chaffed out of conservative outlook. However, under the influence of advancement in science and technology, the spur of economic and social development processes which have been released in various developed and developing societies demand a complete reorientation in outlook under the pressure of changes in family structure, income levels, methods of living, consumption pattern etc. An attitude to scrupulously adhere to old systems becomes a misfit in as much as that it will corrode the social and economic systems ultimately bringing about wastages of national resources and diluting the optimum use of goods, commodities and services which influence living standards.

4. It is, therefore, urgently necessary that the governmental institutions in-charge of framing regulatory laws in relation to building construction should rise to the situation and examine the ways and means by which they could bring about changes for optimisation of the use of resources so as to bring about rise in general economic and social welfare. Buildings - both residential and non-residential - embrace easily about one-thirds to two-thirds of the national capital stock and current investment and mostly this capital structure is a long-life asset. Once its structure is laid it is difficult to alter its form. Hence, it should inherently be so institutionalised that it will meet the



the challenges that would be thrown by fast-moving dynamic societies.

5. It is no denying that attempts have been made to modernise the building bye-laws in various centres. The process has not been alien to thinking in India and the N.B.O. as well as the Indian Standards Institution have been making efforts to develop a uniform code of building bye-laws which can be applicable in the present without hindering construction of functional residential and non-residential buildings and without inhibition to the use of new variety of building materials and the employment of new techniques and designs.

6. One fundamental factor that needs to be emphasized in case of progressive societies in the restructuring that takes place in the consumption pattern. Food slowly gets lesser and lesser demands on the total consumption expenditure and 'housing' almost attempts to reach the position of equality with 'food' whereas clothing maintains the almost static proportion at almost 8-10% in the consumption expenditure of nations. Thus future is unmistakably looking ahead to make proportionately more demands for housing out of available capital and current resources. Therefore, the keeping pace with changing investment and consumption standards is particularly required in building bye-laws which regulate their pattern and form and influence their present and future values and use prices.

7. To get an appraisal of the changes that are taking place or that are likely to take place in the thinking of

the international organs in quantifying this aspect, it would be useful to move to the plane of functional assessment indicators, as far as housing is concerned. These indicators developed by the United Nations try to provide a quintessence of the objectives of various Building Bye-laws followed in advanced and developing countries.

8. Whether it is the use of building materials, size of the room, flow of light, circulation of air, windows, etc. approval of layout and site plans, obtaining of building permits or completion certificates, maintenance of health, sanitary and other requirements, zoning of areas of residential or non-residential purposes, such as, industrial areas, parking, roads, schools, hospitals, playgrounds etc. the welfare health, and progressive development of the citizens is the prime guiding philosophy that spurs the spirit, action and body of the bye-laws, and therefore it is required to be in conformity with the dynamism of the social and economic variables of the society.

9. Following General Assembly Resolution 527 (VI) and the ECOSOC Resolution 434 B (XIV) a Committee of Experts was convened under the joint sponsorship of the United Nations, I.L.O., UNESCO, WHO and FAO to report on the most satisfactory methods of defining and measuring standards of living and changes therein in various centres, having possibility of international comparison. In the complex of measuring levels of living housing was selected as one of the components. In view of this Statistical Commission of the United Nations

in its Tenth Session vide Resolution 13 (E/3126 para 136) listed indicators of housing conditions. After a series of meetings in 1959 and 1960 of the Working Party on Statistics for Social Programmes in September 1960 "Statistical Indicators of Housing Conditions" (Statistical Papers - Series M No.37-No.37-UN-1962) were finalised by the United Nations. These indicators provide the yardsticks by means of which countries (or Regional areas and towns) can assess their housing conditions and evaluate progress or decline over time and reformulate their policies and regulatory measures to bring about desired changes according to social and economic objectives. These indicators need to be interpreted with due regard to climate, culture, degree of urbanisation and the demographic, economic and social structure. 'Special attention has been given to possible utilisation of those physical units which reflect or affect definite aspects of housing conditions and which are satisfactorily measurable'. As no one single indicator can measure all aspects of housing conditions - a number of indicators have been devised while keeping their number to the minimum - so that they directly correspond to the basic housing requirements of adequate shelter, privacy, and sanitation, as reflected by the availability of permanent dwelling, density of occupation, and the provision of essential facilities. Also, supplementary indicators have been listed so that they can reflect circumstances peculiar only to certain countries or regions or they may provide alternative ways of measuring the same

aspect of housing along with their potentiality to describe the extent to which residential construction activity is sufficient to maintain or improve the levels of housing.

10. There are four basic indicators which are believed to reflect universally recognised elements of housing such as, protection against weather, the safeguarding of privacy, a protected water supply and provision of sanitary facilities. Thus they are aimed at providing to a household so as to satisfy aspirations for the type of minimum permanent place of abode designed and built for occupation. Again, the indicators measure the proportion of the population which lives in permanent dwellings, detached family houses, apartments, tenements or other type of dwellings. This percentage can be useful towards formulating housing programmes and policies to stimulate construction of a sufficient number of dwellings to keep up with the population growth and to bring about proper housing supply and its equitable distribution. Further, for safeguarding the health and privacy of the occupants, the density of population becomes crucial factor so that persons per room remain as low as possible especially in urban areas - by further distinguishing according to sex, age and family relationships of the occupants. Though no international standards have been adopted regarding density of occupation but perhaps an average density of one person per room may be considered as adequate from the point of view of maintenance of privacy. Significance of overcrowding can perhaps be judged and delimited to "percentage of occupied dwellings with three or

more persons per room" and it measures directly the extent of extreme overcrowding and more appropriate overcrowding can be around 1.5 to 2 persons per room. Further, the availability of a protected source of water supply for the occupancy of each dwelling unit being essential for preventing communicable diseases as well as for cleanliness and general comfort of occupants the availability of a water supply installation or piped water supply is of particular importance for public health policy so as to have proper or hygienic preparation of food, bathing, pure water supply etc. Again, though in urban area flush toilets are considered of significance, in rural or sparsely populated areas toilets of other types may be considered adequate from a sanitary point of view.

11. The above discussed elements of safe and liveable abode, density or overcrowding, pure water supply, and sanitation are netted by the following four basic indicators:-

B-1 Per cent of the population living in dwellings;

B-2 Per cent of occupied dwelling with three or more persons per room;

B-3 Per cent of occupied dwellings with piped water inside the dwelling or outside the dwellings but within 100 metres.

B-4 Per cent of occupied dwellings with toilets.

12. Supplementary indicators which can provide additional information or alternative information to work in some way as substitutes for basic indicators are five as shown below:

S-1 Per cent of the population living in housing units classified as "rustic" "improvised" "not intended for habitation" or which is without shelter of any kind.

S-2 Average number of persons per room (for occupied dwellings only)

S-3 Per cent of occupied dwellings with flush toilets (urban)

S-4 Per cent of occupied dwellings with toilets other than flush.

S-5 Index of dwelling construction in relation to estimated requirements.

13. The above five supplementary indicators largely either supplement or provide an alternative to the four basic indicators discussed earlier. For example, S-1, takes into account the population living in dwellings with the exception of the population living in collective housing units and thus this includes population without any shelter. It provides a measure of the extent to which inadequate housing (i.e. housing rustic, or improvised, or 'not intended for habitation', etc.) prevails. Such houses are made of mud-walls, thatched roof, bamboo, palm, straw etc. which are usually not permissible under municipal bye-laws. Housing units 'not intended for habitation' are those in use as living quarters although they have not been built, converted or arranged for human habitation, such as, stables, barns, garages, warehouses, canes etc. 'Rustic', 'Improvised', 'not

intended for habitation' are categories of housing units are undesirable housing and are of the objectives of housing programmes should be to reduce and eliminate their existence by making available more adequate housing facilities or at least to improve their quality and supply them with essential facilities such as piped water and toilet installations. The indicator S-2, will help to know the density and would be a guide-line for maintaining low level of density or towards reducing density to a conveniently low level. (The average number of persons per room varies from 0.6 to 3.4). The high densities in small dwellings generally constitute a more significant problem from the point of view of social and health hazards particularly when sometimes dwellings are occupied by several households. It is, however, to be emphasized that small differences in average densities may not reflect corresponding differences in housing conditions since large households, sometimes have higher densities of occupation without affecting privacy or health of the household members if these are husband, wife and children. Further, it is also true that accelerating to climatic conditions the densities may vary without adverse effects. For example, less room space is required in tropical areas because of the family chores taking place out of doors. The indicators S-3 (about 'flush toilet' ) emphasizes that from public health point and housing policy as well as for prevention of diseases, it is essential that toilet installations emptying into communal sewage disposal system or into septic



tanks or other forms of sanitary disposal. Indicator S-4, is again an alternative to S-3, more suitable for rural areas where other than 'flush toilets' may be considered satisfactory from sanitation point. The indicator S-5, provides a measure of the extent of house building activity to keep pace with growing housing needs. This indicator should be used both for urban and rural areas and it serves as a tool to know and decide whether housing conditions are likely to improve or deteriorate in view of the level of housing construction activity.

14. The above listed indicators which help in quantifying the desirable housing standards are in no case exhaustive as there can be various other measures which can be employed. Nonetheless, these indicators which reflect the crystallised statistical and housing expertise incorporate the barometer for judging the housing standards from the point of view of public health policy, social and economic welfare as well as shelter from weather and climatic conditions. These as well form a well-knitted complex of guideline which can objectively be aimed to be achieved by various Governments and more particularly the local governments who have the regulatory functions or ordering certain standards of building constructions.

15. Whether it is the question of the height and size of the rooms or the walls or it is the size of the window, provision of protected water supply or the sanitary facilities relating to bath-rooms, privies, or it is the question of

light and ventilation, foundation of and thickness of the walls, use of variety of building materials, kitchen or the loft providing of garages or service rooms, all of these have to be identified in terms of their potentialities to provide a certain level of satisfying living standards. The indicators discussed above are in a position to mirror out the ultimate end-results of all these provisions. In Governmental activities - whether it relates to budgetary techniques or the classification of various Governmental activities into the economic sector, there has come a complete reorientation and we have either now the performance budgeting or the cost-benefit analysis for governmental activities. Similarly, in the field of local Government's functions particularly in respect of building bye-laws there should be more the element of cost-benefit analysis or the use of performance technique. This analogy can best be fitted and implemented by the use of the indicators developed by the United Nations. Hence, it is incumbent that there should be reformulation and quantification of basic concepts relating to building bye-laws so that they catch the underlying spirit and do not operate only on the outskirts of the frame.

Seminar On  
Building Bye-Laws, Zoning and  
Sub-division Control  
(March 11-12, 1969)

Subdivision Regulations, Zoning and Building Bye-laws

by

Dr. B.D. Raheja  
D.S.Sc. (Syracuse, U.S.A.)

Indian Institute of Public Administration  
Centre for Training and Research in  
Municipal Administration  
New Delhi

## Subdivision Regulations, Zoning and Building Bye-laws

1. Subdivision Regulations
2. Zoning
3. Building Bye-laws
4. Political and Administrative Problems
5. Task Ahead



## Introductory

In a predominantly agricultural country, it requires extra-ordinary efforts to predict dramatic changes in our cities, towngroups and towns to be expected from the rising industrialisation and urbanisation. Vast improvements in agriculture and the rapid developments in our transportation and communications systems will produce phenomenal effects in redistributing population of all regions and bringing them together in the existing and the newly developing urban and metropolitan areas.

Despite our heroic efforts to control population growth, our cities and towns will become more populous and complex, we will seek new knowledge and means of applying it as rapidly as possible to problems and issues of urban growth and development. A comparative study of the number and population of cities and towns of all classes during the past decades reveals that Class I (one lakh and above) contains the largest populations with the smallest number of cities and towns. Of all the towns in the country, the cities and towns in the upper four classes, i.e. I, II, III and IV contain the largest number of people and the smaller towns are disappearing steadily. It is evident that there are relatively limited number of class I and class II cities but these contain a sizeable percentage of urban population.

The number of cities with population of 10 lakhs and above has increased from 4 (78.79 lakhs) to 7 (142.33 lakhs) during 1951-61. The number of cities with population varying from 5 to 10 lakhs has increased from 4 (31.19 lakhs) to 5 (32.44 lakhs) in the same period. There has been considerable increase in the number of cities having a population of one lakh to five lakhs, i.e. from 66 (129.16 lakhs) to 95 (176.33 lakhs). In summary, the number of cities with a population of one lakh and above has gone up from 74 (237.25 lakhs) to 107 (351.10 lakhs) during the period 1951-61. Of 1322 towngroups, 48 are in Class I, 29 in class II, 40 in class III, 10 in class IV and 4 in class V in whole country. The total population of 48 towngroups in class I increased from 129.50 lakhs to 1951 to 180.50 lakhs in 1961 and forms about 4.3% of the total urban population of the country.

In the urban areas, we are confronted with more complicated situations where uncontrolled use of urban land and property to one's advantage causes serious difficulties. If it is left to the play of market pricing system, it may not promote efficient coordination and adjustment of private interest and public need. The Constitution of India, public laws - Central and State, rules and regulations on the one hand and public policies and programmes on the other, influence the institution of



private property and determine the uses in the urban area. In the wake of economic and social changes, the patterns of ownership and the uses of urban properties and lands are bound to undergo great changes. The existing cities, towngroups and towns are inadequate for meeting the increasing demands by a growing industrial and urban economy. With developing agricultural economy, our people will move from the village and smaller towns towards big cities and towngroups on the one hand and from the cities and towngroups towards the suburbs and fringe areas on the other. The anticipated suburban development will set in motion a chain of events which will certainly produce more far-reaching effects on cities and towns than anything yet encountered.

The frustrating gap between demand and supply of housing in the cities, towngroups and towns has resulted in the concentration of population in the existing stock of housing, greater intensity and additions and alterations in the existing houses and serious violations of building bye-laws and land uses. Against the total population of 43,92,34,771, there are 7,88,55,586 occupied residential houses and 6,89,48,516 households in the country and against an urban population of 7,89,36,603 (17.97%) there are 1,37,85,314 (17.48%) occupied residential houses and 1,55,63,371 (22.57%) households in the urban areas, according to 1961 Census of India.

In India, city and regional planning is gaining increasing recognition and the State Governments have enacted laws and formulated rules and regulations to control and regulate the urban and metropolitan growth. Town planning laws are in force in Madras, Andhra Pradesh, Bihar, Mysore, Punjab, Kerala, Maharashtra, Gujarat, Madhya Pradesh, Rajasthan, Assam and Orissa. In addition, there are a few laws dealing with town improvement, peripheral control and slum clearance in some States. Within the legal framework, the State Governments have set themselves to the task of preparing regional and master plans etc. for their cities and towns and of ensuring ways and means for their implementation.

Public control of uses of land and buildings is being increasingly recognised by the legislative and judicial agencies in our country. Subdivision, zoning and building bye-laws are the basic tools which are gradually being applied by all levels of government in order to ensure orderly growth and development of urban communities. Gradually, cities and towns are preparing master plans either at the Central and State Governments or on their initiative. A master plan involves the requirements of sound building bye-laws, and zoning and subdivision codes. Unless these basic tools are provided, master plans will be merely pious documents for academic purposes. It is important to recognise that State enabling laws should be enacted thus conferring upon the urban local bodies necessary powers in this regard.

New housing requirements, new building techniques, new land uses, new human needs require new building bye-laws, zoning and subdivision codes. And since housing serves a variety of basic needs, it seems reasonable to assume that housing developments must respond to the changing needs of the common man and offer pleasant and functional surroundings to all those who make use of them. New housing and planning tools are needed to accept, and if necessary, to encourage diversity rather than uniformity.

### Subdivision Regulations

With the rapid growth of our metropolitan areas, cities and towns, the processes of urban and suburban growth are extending towards the fringe areas and suburbs. To a large extent, new areas are being built by industry, government, cooperative societies and individuals for industrial, commercial, governmental and residential purposes. To some extent, the State Governments and local bodies have acquired, developed and disposed of residential areas for displaced persons from Pakistan, public and civic employees and the public at large. In other cases, private enterprise has developed large tracts of land and sold the plots to the individuals for residential, commercial and industrial purposes. This process of dividing the virgin land into smaller parcels for immediate or long term purposes of transferring ownership or building development is known as "sub-division" and requires the laying out of new streets,

drainage, sewers and other civic services. The process of sub-division is of critical importance for all concerned since new lands are being acquired, developed and disposed of on a large scale for accommodating the large influx of people towards urban areas. The manner in which new lands are developed and disposed of has a direct bearing not only on the land concerned but on adjacent or nearby properties and the entire urban community at large. We are deeply interested in the design and development of each new sub-division for sound and orderly urban and metropolitan growth.

New lands with new land uses, circulation patterns, drainage and sewerage will intensify the pressures on the existing systems and will enlarge, to a great degree, the need for a whole series of public and civic services. Too much or too rapid suburban growth can create traffic hazards on the national highways, state and municipal roads and streets and create a need for more water supply and more sewage disposal facilities. Invariably we are experiencing that new areas are being sub-divided and disposed of with sub-standard and inadequate provision of public and civic amenities thus causing serious long-term problems such as marginal development, open and waste lands and even defunct or uneconomic housing and industrial colonies. From another and more positive view-point, it becomes necessary to face vital questions of sub-division with greater foresight and boldness.

By insisting upon well-designed and well-developed sub-division, it is possible to ensure high standards of public and civic amenities and to avoid the pitfalls of congestion, concentration and chaos in the existing urban areas. The prospective industrialists and house builders can thus be saved from racketeering, profiteering and exploitation and will be able to obtain more favourable loans from the Government housing schemes, Life Insurance Corporation and cooperative and mortgage banks. In the absence of this, the newly-developing suburbs will become serious liabilities on the existing resources of public and local bodies and erode the tax base of the local bodies in due course. It becomes all the more essential that not only municipal corporations and municipal committees in the big cities should insist upon sub-division, / zoning practices but also the smaller cities and towns should be equally concerned for, if they do not take action in advance, they may be confronted with more complicated problems created by careless colonizers and land developers. The elected representatives, official-state as well as local and the public at large are to be enlightened and aided to direct and guide suburban development and to develop sound industrial estates and residential colonies. The need of the hour is to make sound decisions when rules and regulations concerning sub-division and the proposed layouts for new areas are presented for approval. It cannot be too strongly emphasised that time

and money spent in this regard will yield greater dividends during development of land and after it is completed.

The municipal bodies within their jurisdictions are exercising whatever control they can in the **absence** of proper codes for the development of lands under the general guidance and supervision of State Departments of Country and Town Planning. In the un-incorporated and non-municipal areas either there is no control whatsoever <sup>or</sup> it is entirely nominal and generally ineffective.

### Zoning

Zoning as a function of city and regional planning is a tool to determine the land uses in the master plans and to ensure compliance for the health and happiness of inhabitants. Through zoning, it becomes possible to carry out master plans with respect to the use of private property. The individual property holders are subjected to certain controls and restraints in the use of their property in the public interest. It is gratifying that the law makers, judges and administrators have widely recognised in the developed as well as developing countries the need of reasonable restrictions on the uses of private property. The community thus derives varied benefits - tangible as well as intangible - physical as well as financial - by resorting to zoning plan/ordinance/map.

The master plan is prepared on comprehensive analysis of population characteristics, occupational patterns, existing and future land uses in the cities and their suburbs. The regional plan prepared on the same lines encompasses a wider urban complex and approaches the problems on a regional basis. In this task of planning, zoning is an essential element with greater potentialities and scope. Zoning thus supplements and promotes the laudable objectives and recommendations of a master plan by preserving and recreating the pleasant environments of residential areas, by stabilizing the property values and by preventing congestion and concentration in the newly developing areas. Zoning helps controlling the location, function and also the aesthetic quality of residential, commercial and industrial structures in the urban areas.

Through zoning, the police powers of the State are exercised to promote the best interests of the community in accordance with a master/regional plan and to seek compliance of various Central, State and local statutes, rules and regulations concerning urban and suburban growth and development. The most significant objectives of zoning are to lessen undue concentration of population and economic activities, to provide an efficient system of transportation and circulation, and to secure water supply, storm water drainage, sewerage and other civic amenities.



In the urban and suburban areas, zoning generally consists of three basic types of districts such as industrial, commercial and residential. Except residential, the terms industrial and commercial are frequently confused and often misunderstood. The term industrial is closely linked with manufacturing and a similar situation exists with the use of the term commercial or business. In the residential district, the dominant use is for dwelling houses of all types - single and multi-storeyed. In the industrial/manufacturing district, the land use is permitted for

manufacturing or such industrial operations which are responsible for the production of marketable commodities. The term commercial/business district pertains to commerce, trade, transport and professional offices, thus indicating an interchange of goods, wares or property by sale or purchase. These terms and their descriptions will further be elaborated and classified alongwith the use of zoning on a large scale. It is evident that a well-considered nomenclature will eliminate inconvenience and confusion that may occur from absence of a uniform and standard method of defining and designing these terms.

In determining these zoning districts, we are faced with several alternatives which may permit us to modify the existing and future land use patterns in our urban and suburban areas. The planners, engineers and administrators

are required to offer their suggestions and recommendations and the zoning commission on a regional as well as local basis or the community has to weigh all the relevant factors before finally deciding upon the exact number and classification of these zoning districts. There is no denying that various aspects of zoning will be determined differently by different cities, towngroups and towns. Often the size and status of a particular city or towngroup or town or a suburban area will greatly influence the number, size and location of these zoning districts. In short, it is not possible to suggest any guidelines about details of the zoning districts and the zoning ordinances will always be subjected to modifications and amendments thus providing for a certain amount of flexibility in response to rapidly changing characteristics of urban and metropolitan areas.

A comprehensive zoning plan, solely an advisory document, should be prepared by a regional planning board or zoning commission consisting of representatives from public as well as private sectors: it should set forth policy thus indicating how the individual urban local bodies should respond to pressures of population growth and economic activities. The urban local bodies of a city, adjoining towns and suburbs, whose jurisdictions are served by such a comprehensive zoning plan should carry out the directions from the standpoint of a growing urban/metropolitan complex.

The individual urban local body can formulate a zoning ordinance or a zoning map of its own within the comprehensive zoning plan so as to make zoning a more valuable tool. . It is advisable that the adjoining towns and suburbs, in formulating their zoning ordinance or zoning map should identify their problems and needs in logical relation to anticipated future growth of the entire urban or metropolitan complex. Each urban local body must adhere to the suggestions and recommendations of the comprehensive zoning plan, while deciding upon modifications and allocating resources.

In most of the zoning districts, it is likely that non-conforming uses of land exist and create serious problems or relocation and rehabilitation. . It is advisable to allow these non-conforming uses to continue for some reasonable time and to limit the expansion of these uses to a minimum and to promote an eventual change to a conforming use. In fact, positive administrative measures will have to be taken to prevent the extension of non-conforming uses and to provide for their relocation at the earliest.

The contents and intents of zoning ordinance or map are interpreted by a board of appeals, set up in accordance with the enabling state law. Such a board of appeals is empowered to hear appeals and decide all matters referred to it concerning zoning. In certain cases, it is also authorised to grant special permits subject to suitable restrictions and appropriate safeguards. In deciding upon appeals, the board

of appeals has the power to allow 'variances' in the requirements of zoning ordinance or map while still protecting the public interest. Such 'variances' in the zoning ordinance or map are generally granted on the grounds of reasonable difficulty and undesirable hardship. The decisions and verdicts of such a board of appeals are subject to judicial reviews by the courts.

### Building Bye-laws

The time has come to present the property owners with the alternatives of either complying with the provisions of subdivision regulations, zoning and building bye-laws or surrendering the property for public use. The existence of slums and blighted areas calls for strict enforcement of building bye-laws, zoning and subdivision with the pooled resources of all levels of government - local, State and Central. Thus the specifications of building bye-laws etc. become the crucial determinants of public policies and private investment decisions in implementing slum clearance schemes. It may be argued that it is not possible to produce through slum clearance schemes as sound a structure nor one of as high a value as can be expected from the most minimum level of new construction. The decision to use building bye-laws etc. to implement slum clearance schemes must be reached after careful consideration of several factors. The building bye-laws cannot expect any basic structural repairs, elimination of existing undesirable uses or significant extensions

in the remaining life of the houses and buildings. However, the slum clearance schemes must insist upon minimum compliance of building bye-laws with a view to restoring economic uses of land, to enhance tax revenues and reduce the cost of public services and civic amenities. Considered from an economic standpoint, the measure of the success of slum clearance schemes is the extent to which the building bye-laws etc. are enforced.

If building bye-laws etc. are formulated on modern lines and enforced strictly, the assessed valuation of properties in the central as well as suburban areas is enhanced and the tax revenues will be correspondingly increased. In addition the municipal governments may be able to attract new industries and commercial organisations and retain the existing areas within their municipal limits, to increase municipal revenues from the fees and charges on various grounds and boost the socio-economic development of the entire area. Finally, building bye-laws and zoning tend to standardize the house building activity, price and rent levels and the socio-economic status of the residents in the housing colonies.

Our experience with building bye-laws is comparatively old and varied, making it easier to generalise on the details of specifications, standards and procedures. The building bye-laws are formulated and adopted by the urban local bodies

with the final approval of State Governments. Normally, however, the formulation and enforcement of building bye-laws have proved most cumbersome and complicated for many municipal corporations and municipal committees. The problems have been further aggravated where different sets of building bye-laws are being followed by a cantonment, industrial estate/township, notified area, or an urban/village panchayat within the same urban complex. For instance, the public sector undertakings of Government of India have adopted their own building codes for their townships and these cause contradictions and conflicts in each and every local situation.

Invariably, these building bye-laws provide for size of plot; sanitation; water supply and drainage; fire protection; height; front, side and rear set backs; size of rooms; number of stories; percentage of area covered for dwellings, factories, offices, hotels, lodging houses and other structures etc. etc. In the broadest sense, these building bye-laws have enabled the local governments to ensure well-built and functional structures in response to changing social, economic and technological developments. The building bye-laws may differ in their contents and standards in different zoning districts in order to promote the use of land for the most desirable purposes and to maintain property values.

The promulgation and enforcement of building bye-laws in many cities and towns in the country for a considerably long time have pointed up the numerous hazards and problems which need to be analysed and studied carefully and critically. Many of these hazards and problems are created by either legislative or executive or judicial limitations and inadequacies. Even a greater number of problems are generated by each city or town because of the lack of standardization and uniformity in the building bye-laws of different municipal jurisdictions. These may be due to varied factors such as local needs, local pressures or individual whims and attitude of the councillors constituting a particular urban local body. It is, therefore, logical to suggest that if the enabling municipal and town planning laws are amended to include certain basic provisions which might require, among other things, certain uniformity and standardization, methods and procedures, many problems now depending upon enforcement and judicial interpretation can be either minimized or eliminated. There is, however, a need for uniformity and equity with respect to similar facts and forces in different areas inside the congested and sparsely populated communities.

#### Political and Administrative Problems

The people are being forced to live within the metropolitan areas and big cities by the economic and social forces and this tendency is rising day by day and in every way. By virtue of this, they are in dire need of govern-

mental and civic services irrespective of conflicting jurisdictions, legal inadequacies and fiscal disparities. It is, therefore, incumbent upon the legal, political and administrative forces to respond to these needs as quickly as possible. The law has to play its role as efficiently and adequately as possible in providing the necessary legal framework for existing as well as newly-created political institutions and administrative agencies. People cannot be made to suffer indefinitely due to slow processes of law: they will tend to disregard the law itself. The law courts are required to adjudicate and interpret various aspects of building bye-laws, zoning and subdivision regulations: the manifold cases decided by various courts in all the States present different shades of views and opinions on some of the important questions concerning regional and metropolitan growth. Under such circumstances, it is inevitable and implied that these judgements contribute incidentally and pointedly to the reinterpretation and moulding of the law concerned. Often, the courts may be forced to criticize various agencies of the administrative set-up and recommend for its reorganisation and readjustment.

A hard and fast rule governing the relations between the deliberative and executive agencies would be impracticable in the presence of a multiplicity of Acts, rules and regulations. Moreover when these are subject to repeal, amendments,



modifications and judicial interpretations, the line separating the deliberative agency from the executive one is very thin and the relations between the two assume greater importance at the local level than at the higher levels of government. Since, however, the task of enforcing building bye-laws is of a highly technical nature, it would be desirable to leave implementation to those technically competent to deal with these matters. This would imply a certain measure of decentralisation and delegation. With the rise of industrialisation and urbanisation, any effort to define the duties and activities of the executive agency in such a detailed manner as to make administration almost a matter of mechanical and compulsory routine, is, out of date. What is needed is confidence in the executive agency by the deliberative one leading to the grant of broader discretionary powers and wider initiative.

The crisis in regional planning vis-a-vis subdivision regulations, zoning and building bye-laws is not a crisis of planning concepts or ideals but is really a crisis of political or governmental nature. The problem cannot be solved through make shift administrative reorganisation and ad hoc agencies. The vast urban and metropolitan growth on the one hand and the concentration of vast majority of population in our cities towngroups and towns requires new kinds of instruments of political and governmental organisation. It is certainly wrong to assume that these instruments will erode local self-government.

The rising urban and suburban growth and gradual socio-economic interdependence of people within urban complex will make it increasingly difficult for multiplicity of urban local bodies with overlapping jurisdictions to deal with varied urban problems on less than an areawide basis. Amongst others, the problems relating to acquisition, development and disposal of land including the land uses cannot be satisfactorily tackled on piecemeal basis without ensuring coordination, collaboration and coexistence amongst all levels and units of government. In the not too distant future, we shall be confronted with the problems of coinciding political jurisdictions of fragmented and overlapping urban local bodies with the demands for areawide needs and services.

When the problems of land acquisition, development and disposal for the central as well as suburban areas of an urban complex, more particularly of fringe areas not yet ready to perform local government functions, are to be solved by depending upon the existing municipal corporation or municipal committee, a number of legal and administrative questions arise: (i) Does the existing municipal corporation or municipal committee have the rights of peripheral control applicable to land uses? What are the specific liabilities and responsibilities of the existing municipal corporation or municipal committee in this regard? Will the existing urban local

body be fully compensated or financially aided by the State Government? The answers to these questions will arrest the haphazard and substandard growth and prevent colossal wastage of scarce resources in the near future.

In the preparation and implementation of regional and master plans for our cities and towns, it may not be taken for granted that varied complicated problems of administration do not exist in these regions and cities. It may be of critical importance to survey the administrative set-up and to find out what units or agencies of government perform each of the functions and to evaluate how they are performed. The apparent disparities and inequalities which are reflected politically and administratively in every State must be identified and tackled effectively. Various units of government compete for public funds and confront each other directly and indirectly at all levels, in arguments over who is financing whom in matters of various civic needs and public welfare. It, therefore, becomes essential to examine administrative organizations, methods and procedures with a view to locating friction points in the relationships among Central, State and local governments which grow out of these disparities and suggest measures by which intergovernmental relations may be improved.

In all of these control and regulatory measures, the problems of enforcement, coordination methods and procedures and evaluation are critical to success. A wide range of control and regulatory measures are being made through Central, State and local laws, each of which has an effect on the type and character of development taking place in the urban and metropolitan areas. Outdated administrative approaches and techniques are no longer adequate when the pace of urban and metropolitan growth is proceeding by rapid strides. Untrained and part-time inspectors and implementation officers are not in a position to study, analyze and decide on the several new ordinances, regulations and byelaws. The officers and their staff must be both competent and courageous and implement these controls and regulatory measures without fear and favour. The effectiveness of laws, regulations and byelaws depends not only in their thoroughness but also on honest, enlightened and consistent administration at all levels, by all concerned.

#### Task Ahead

The task of guiding urban growth and development in our cities, towngroups and towns is gradually growing beyond the resources and capabilities of our existing municipal corporations, municipal committees and other local bodies since the newly emerging factors and facts of socio-economic growth are extending beyond these legal and administrative

boundaries. As a consequence, the task will have to be accomplished with new approaches and devices on an area-wide basis. Thus, efforts will have to be made to stimulate the creation and growth of many regional/metropolitan planning bodies and statutory special purpose authorities on two levels: the local or municipal level and regional/metropolitan level.

In the evolution of urban and metropolitan growth, it is essential to aim at the reduction of population densities and at the same time to maximize the uses of our scarce resources for spreading our city populations. In this regard, subdivision regulations, zoning and building byelaws are destined to play an important role in reducing the disadvantages of urbanisation such as congestion, slums, overcrowding and ugliness and increasing the advantages such as recreation, open space, fresh air, convenient shopping, adequate housing etc. An important relationship exists between the subdivision regulations and zoning on the one hand and building byelaws on the other to prevent individual monopoly of uses of land or property in the urban and suburban areas. We need to create our urban and metropolitan communities without repeating the mistakes of the Western societies. Also, in redeveloping our old cities and towns, we have to introduce bolder concepts of city and regional planning and establish integrated and interdependent communities within our urban and metropolitan regions, and the patterns of urban and metropolitan growth and the uses of land and

property will largely be determined by varied forces including subdivision regulations, zoning and building byelaws.

The problems of government in the metropolitan areas, cities and towns are being tackled through various approaches such as extension, annexation, consolidation, statutory authorities, intergovernmental contracts and agreements, etc. etc. It should not be concluded that any of these approaches will solve the problems since it may be advisable to consider combining the salient features of some of these approaches to accomplish the objective. The use of peripheral control as a device of extending the geographical limits of a city may be more effective in the fields of regional planning, subdivision and zoning, in the unincorporated and non-municipal areas. In due course, the use of peripheral control may also serve as a step toward annexation by promoting the fringe area characteristics in harmony with the central areas of the city concerned. From the standpoint of political acceptance, the use of peripheral control does not disturb much the existing political and administrative set-up. Thus, the use of peripheral control represents a new exercise of power rather than an attempt at diminishing or disturbing the existing power structure.

\* The State Legislatures may consider enacting laws to provide for some such suitable device for the urban local

bodies. The State Governments may be required to provide for necessary legal and administrative framework by constituting planning or zoning boards for the entire urban and suburban area for which subdivision and zoning regulations are intended. Such a planning or zoning board should have equal number of members from the central as well as fringe areas.

The transition from rural to urban society is painful but it can be made smooth through sound and orderly development of urban and metropolitan growth. The urban local bodies must be guided and assisted with new control and regulatory measures and the trained planners, engineers and executive officers must be made available to them through the transitional stages when their requirement for skilled and specialized services is greatest but when their own administrative and financial resources are inadequate to cope with the newly developing situations. What is vital to the development of urban and metropolitan growth is a recognition of the hardships and inadequacies of the existing municipal corporations, municipal committees and other urban local bodies. A great deal remains to be done.

Seminar on

Building Bye-Laws, Zoning and  
Sub-division Control

(March 11-12, 1969)

Building Bye-laws in Selected Cities & Towns  
in India

(A Descriptive Study of Main Features)

Compiled by

Dr. B.D. Raheja  
D.S.Sc.(Syracuse, U.S.A.)

Shri A.K. Pachouri  
Associate Planner  
Town & Country Planning Department  
Meerut

Indian Institute of Public Administration  
Centre for Training and Research  
in Municipal Administration  
New Delhi



Building Bye-laws in Selected Cities in India  
(A Descriptive Study of Main Features)

Contents

<u>S.No.</u>	<u>Name of Cities</u>	<u>Page No.</u>
1.	Dehra Dun	1
2.	Bombay	5
3.	Ahmedabad	6
4.	Nadras	7
5.	Meerut	8
6.	Roorkee	9
7.	Kanpur	10
8.	Chandigarh	11
9.	Amritsar	12
10.	Mysore	14

## BUILDING BYE-LAWS IN SELECTED CITIES IN INDIA

(A Descriptive Study of Main Features)

MEERUT MUNICIPAL BOARD

Population: 126,918

Area: 12.00 sq. miles

### Year of Building Bye-laws

Building Committee: The Municipal Board established the Building Committee with powers such as to consider the plans for the approval and in the event of the plans being rejected to give reasons for the same; to consider lay-out plans; to hear appeals received within ten days of the passing of orders by the Executive Officer on the plans submitted for obtaining permission etc.

Building Register: All applications received during the year shall be entered in the register with necessary particulars about the owner and the site etc; report of Water Works Engineer, Municipal Engineer, Municipal Medical Officer of Health shall be obtained within 15 days of the receipt of every application and its entry in the Building Register. The Board shall forward by post under postal certificate on the prescribed form to all neighbours as indicated in the plans, inviting written objections if they have any within one week of the receipt of notice. The Municipal Board's decisions shall ordinarily be based on the reports of the Water Works Engineer, the Municipal Engineer and the Medical Officer of Health. If the Board takes decision contrary to the reports of any or all the Officers, the Board shall clearly record in the resolution

as to why and due to what reasons the decision has been taken against their opinion.

Building Permit: The building permit shall be issued by the Board or by the Committee duly authorized by it or by any other person thereof. If the building is not constructed in accordance with the building permit the Committee or the Executive Officer may require it to demolish or alter in necessary manner. After the completion of the work the Board shall carry out inspection within two days from the date of the receipt of the information.

Building Plans: The building plans shall contain the key plan, the site plan and the building plans.

The following restrictions shall be observed with regard to the building construction.

Sl. No.	Total site area	Open area/yards			Minimum open area
		Front	Back	Sides	
1	2	3	4	5	6
		feet	feet	feet	
1	500-1000 sqr. ft.	4	1 $\frac{1}{2}$	1 $\frac{1}{2}$	one third of total site area
2	1001-4500 "	4	2	2	" " "
3	4501-10000 "	15	7 $\frac{1}{2}$	7 $\frac{1}{2}$	one half of the total site area
4	10001-12000 "	15	10	10	" " "
5	12001-18000 "	20	15	15	60% of " "
6	18001-above "	25	15	20	" " "

Height of Rooms: The height of living, sitting, dining, cooking and shop rooms shall not be less than 10 feet from floor to roof bottom at any place and corner of the room. Height of bath, laterine, garage, store and verandah shall not under no circumstances be less than 8 feet. The height of rooms in the first floor or extra floors shall not be less than 8 feet.

Area of rooms: Rooms for residence, sitting, dining or running a shop shall not be less than 8 feet in width and their total area shall not be less than 80 sqr. feet. The area of latrine and bath shall not be less than 20 feet.

Number of Floors: No buildings shall be constructed with more than  $2\frac{1}{2}$  floors or more than 30 feet in height in the residential or in the bazar or market. If more floors are proposed or more area height is necessary, the Board shall give a special permission keeping in view the essential points.

Areas and number of rooms: In every building there shall be at least one room and one verandah or two rooms together with a kitchen and one latrine. In the fully developed area if reconstruction is being carried out and there be no suitable site for a latrine in the area, the condition of providing a latrine may be waived. But in newly developed areas this condition cannot be waived.

Covered area: The covered area of every building shall be governed by the following:

- (a) The covered area in the bazar or market shall not be more than 75 per cent of the total area. In the case of market it would be obligatory to leave out streets not less than 10 feet

vehicles  
wide so that the / may be parked there and it be convenient to load and unload goods as also at the time of any fire, the fire-brigade may be easily moved.

(b) In industrial area the covered area shall not be less than 50 per cent of the total site area.

(c) For other areas please refer to bye-law 44. In the case of quarters or connected units of buildings the open area of each unit shall be as per the table given therein. It would not be permissible to leave the open area at one or more spots or at one side only and in some cases there be none at all.

Civil line's village abadi: The extent and limits of the Civil Lines Area and the Civil Village Abadis are prescribed in the Building Bye-laws.

The following shall be special bye-laws: (a) No building shall be permitted in this area on a site which is less than 1,000 sqr. feet; (b) not more than half the site area shall be permitted to be covered; (c) All constructions shall be made after leaving a space of 5 feet from the boundary; (d) no sullage shall be drained on the road or in the roadside drain if, however, there be a drain for sullage water, the sullage may be connected with that of the approval of the Board.

There are special bye-laws for bazar or established area on Rajpur Road.

City area shall be divided into residential and bazar areas. Bazar area shall be the same as it is at present.

B. Lighting and Ventilation

Agency	Min. window Area (Ratio of Floor Area)	Distance to farthest part of room	Min. Ventilator Area
	1/10	6'	3 sq. ft. (two) on opp. walls
	1/7 inc. Door Window and Ventilator	in chawls	

C. Siting

Size of Plot

Min Access

400 sq. yards.

4' - 0"

Domestic (Residential i.e. (Shops & offices

Verandah Gali or Passage

600 sq. yds.

6' - 0"

Domestic Semi detached

2400 sq. yds.

6' - 0"

Chawls, Factories etc.

4800

Mills, Factories

10' - 0" Passage Ht. 11' - 0" Min.

Inner city 30 sq. yds.

Street Frontage 12'

Front Set Back

Rear Set Back

Side Set Back

15'

10'

10'

15' (for chawls)

15' (for chawls).

4. MADRAS MUNICIPAL CORPORATION

Population: 1,729,141

Area: 48.93 sq. miles

A. Sizes of Rooms

Min. Area: Habitable Rooms 80 sq. ft.

Min. Height: Habitable Rooms 9'-0"

B. Lighting and Ventilation

Agency	Min. Window Area. (Ratio of Floor Area)	Distance to farthest part of Room	Min. Ventilator Area
	1/5 or 15 sq. ft.)	Door Window Ventilation	
	whichever is greater		

C. Siting

Open Space: At least 8' of Room wall should abutt on open space of not less than 6' width on a Verandah 1/5 of dimension of Room.

5. MEERUT MUNICIPAL BOARD

Population: 200,470

Area: 7.80 sq. miles

A. Sizes of Rooms

Min Area: Habitable Room 80 sq. ft.

Min Width: " " (one side) 8 ft.

Min. Height " " 10 ft.

B. Lighting and Ventilation

Agency	Min. Window Area (Ratio of Fl. Area)	Distance to farthest part of Room	Min. Ventilator Area.
	1/10	20'	

### C. Siting

Minimum size of Plot : 15' x 25' : 375 sq. ft.

Maximum coverage : 75 % L dwellings.

Set back (Rear) : 12' (Entire width)

Ht. of building : 1st Storey : 12' clear

IIInd " : 10' clear

Total : Width of street  
+ 2½' on 60' max.

No. of Storeys : 4

## 6. ROCKEE MUNICIPAL BOARD

Population: 33,651

### A. Sizes of Rooms

Min Area: Habitable Room : 120 sq. ft.

Min Height: Habitable Room : 10'

### B. Lighting and Ventilation

Agency	Min. window area (Ratio of Fl. Area)	Distance to farthest part of room	Min. Venti- lator Area
--------	---	---	---------------------------

1/10 (At least  
one window)

Cross ventilation through  
doors and windows.

### C. Siting

#### A Civil Lines

Min. size of Plot : 10,000 sq. ft.

Min size Frontage : 100 ft.



Coverage  $1/3$

Front set Back 25'

Rear " " 20'

Side " " 20'

Other " " 20'

Ht. of Bldg.  $1\frac{1}{2}$  times width of street  
of 35' max.

Number of storeys 3

Plinth 1' - 6" min

B. City

Front Set Back

4'

5' an approach roads streets, or lanes  
parks or open spaces.

7. KANPUR MUNICIPAL CORPORATION

Population: 88,177

Area: 104.16 sq. miles

A. Size of Rooms

Min Area: Habitable Room 30 sq. ft.

Min width of one side 7'-0"

B. Lighting and Ventilation

Agency	Min. window Area (Ratio of Fl. Area)	Distance to farthest part of Room	Min Ventilator Area
--------	---	---	------------------------

$1/10$

20'

12 sq. inches. Two  
openings within  
2' of ceiling.

C. Siting

Size of Plot	Max Coverage
500 sq. ft.	66%
500 to 1000 sq. ft.	50% or 333 sq. yds. whichever is more
1000 to 2000 sq. ft.	33.3% or 500 " " " "
2000	25% or 666 " " " "

Bazar : 75%

Industry: 60%

Ht. of Bldg. : I storey : 12 ft.

II subsequent: 10 ft.

60' max except on Commissioner's permission

Number of storeys 4

8. CHANDIGARH TOWN

Population: 89,321

Area: 12.33 sq. miles

A. Sizes of Rooms

Min Area: I Habitable Room : 100 sq. ft. Ventilated on two sides

II " " : 60 " " "

III " " : 100 " " "

IV " " : 100 " " "

V " " : 100 " " "

Kitchen

Bath

Min. width of one wall	7'-0"
Min. Height: Habitable Room	10'-0"
For Room below 150 sq. ft. but having cross ven- tilation	9'-0"
Kitchen	7'-6"

**B. Lighting and Ventilation**

Agency	Min. window Area	Distance to farthest part of Room	Min. Ventilator Area
1/6 or Hab. Room	30 sq. ft.	-	-
6 sq. ft. kitchen	-	-	-
2 sq. ft. Bath	-	-	Jali, Vent or clear storey
2 sq. ft. or W.C. Mech. Vent.	-	-	20 sq. inches

**C. Siting**

Courtyard Not less than 100 sq. ft. Min. width 8' or 1/2  
mean height of Bldg.

Ht. of Bldg. According to Zoning Plan.

**9. AMRITSAR MUNICIPAL COMMITTEE**

Population: 396,295

Area: 30.78 sq. miles

**Thickness of walls:** The walls of the masonry building shall be of  
the following minimum thickness:

(a) for a wall not exceeding 12 feet. height 14 inches.

(b) for a wall not exceeding 25 feet height:-

1st storey .... 18 inches

2nd storey .... 14 inches

Parapet .... 9 inches

(c) for a wall not exceeding 30 feet in height 18 inches to a height of 12 feet and 14 inches thereafter.

(d) for a wall not exceeding 50 feet in height 18 inches for the first three storeys and 14 inches thereafter.

No room intended for home habitation shall have a floor area of ~~not~~ less than 80 sq. feet.

No room intended for human habitation shall be less than 10 feet height.

The ventilation of every room shall be through windows, doors etc., opening directly into external air and shall be equal to at least 25 per cent of its floor area.

Every building of more than one floor shall have ample width of stairs not less than 2.5 feet to ensure safety in case of fire, and every such stair case shall be provided with sufficient light and ventilation.

No building other than of masonry shall be more than 2.5 feet high and no residential building shall exceed 60 feet in height measured from ground levels.

The maximum height of any building shall be limited by the width of the road or open court in front and twice the width of such road or court in the Civil Station and three times in the city. In case of building consisting more than one storey the height of each storey shall not be less than ground floor, 12 feet, 1st and second floor 10 feet each.

No building or building except within the city walls shall cover an area greater than  $\frac{2}{3}$  of the area of the plot upon which the building or ~~the~~ buildings are to be erected.

10. MYSORE MUNICIPAL COMMITTEE

POPULATION: 253,865

AREA: 12.00 sq. miles

No new building shall be erected by any person the foundation of the wall of which along the road, street or lane is less than 1.5 feet from the side drain; but it shall be competent to the President of the Municipal Council to require a margin of land to any width not exceeding three feet in cases in which he considers the same necessary. In such cases a reasonable compensation shall be paid for in excess of land over  $1\frac{1}{2}$  feet width drain margin.

The footings of the walls and the posts of the ground floor of the building proposed to be erected shall rest on solid ground or upon a sufficient thickness of concrete or upon some solid and sufficient sub-structure as a foundation.

As a rule, all sites measuring 100 feet/100 feet or more, no more than half the site shall be build upon; in all other cases, no more than  $\frac{2}{3}$  of the site shall be build upon in the case of sites and houses abutting upon the roads hereunder specified the President may in his direction allow a larger extent than half or  $\frac{2}{3}$  rds to be built upon.

In the case of all new buildings to be erected subsequent to the passing of these bye-laws, the height of the building (measured at the highest point of the roof) which abuts a road, street or

lane measuring not less than 12 feet wide shall not, as a rule, be more than the width of the road, street or lane on which it abuts. In cases where the width of the road, street or lane is 12 feet or less no storeyed building or buildings exceeding 12 feet in height, measured at the highest point of the roofing shall be allowed.

Every person erecting a building shall construct every room intended to be inhabited in such building except a room in the roof thereof so that the same shall be in every part, at least 8 feet in height from the floor of the ceiling. He shall so construct every such room that the same shall have a clear superficial area of not less than 80 sqr. feet.

Every person who shall erect huts or sheds or ranges or blocks of huts or sheds whether the same are to be used as dwellings or stables or for any other purposes, shall, if the President so requires building the same: a) so that they may stand in regular lines by the free passage or way in front of and between every two lines of such width as the President may direct for ventilation and scavenging : b) with such and so many privies, latrines or urinals or such means of draining as the President may require: and c) at such a level as will suffice for the means of the drainage required.

If any person has any doubt or difficulty as to the true intent or meaning of any matter connected with these rules or the requirements thereof he can before giving notice, in writing of his intention to erect or re-erect any building apply to the President, who shall upon receipt of such application given the said person

within a week, such information as in the circumstances may be necessary. Sanction of the President may be given by him directly or by any other Municipal Officer of whom the President may have delegated his powers, duties and powers in that behalf.

An appeal shall lie to the Council from any other passed by the President in exercise of the powers vested in him by these bye-laws.

Appendix 1.

THE UTTAR PRADESH (REGULATION OF BUILDING OPERATIONS)  
ACT, 1968.

The Act provides for the regulation of building operations in Uttar Pradesh with a view to preventing haphazard development of urban and rural areas.

The building means any structure or erection or part of a structure or erection which is intended to be used for residential, commercial, industrial or other purposes, whether in actual use or not.

If, in the opinion of the State Government, any area within Uttar Pradesh requires to be regulated under this Act with a view to the prevention of bad laying out of land, haphazard erection of buildings or growth of sub-standard colonies or with a view to the development and expansion of that area according to proper planning, it may by notification declare the area to be regulated area.

The State Government shall as soon as possible constitute for such area an authority called the Controlling Authority for the discharge of functions assigned under this Act.

The Controlling Authority shall consist of the following members not exceeding 9, namely: the Secretary, Local Self-Government or the Commissioner of a division concerned or any other officer not below the rank of a Sub-Divisional Magistrate, who shall also be the Chairman: b) nominees of the State Government who among others may be - i) the President of the District Board of the District concerned ii) the President of the Municipality or any other local authority concerned: iii) the Controlling Authority shall have the power to co-opt as members, one or two other persons.

The Controlling Authority may issue, in relation to any regulated area such directions regarding the following matters:

a) the division of any site into plots for the erection of buildings and the manner in which such plots may be allotted to intending purchasers or lessees:

b) the allotment of reservation of land for rates, open spaces, gardens, recreation grounds, schools, markets and other public purposes:

c) the development of any site into a township or colony and the restrictions and conditions subject to which such development may be undertaken or carried out:

d) by erection of buildings on any site and the restrictions and conditions in regard to the open spaces to be maintained in and around buildings and the height and character of buildings.

e) the alignment of buildings on any site;

f) the architectural features of the elevation or frontage



of any building to be erected on any site;

(g) the number of residential buildings which may be erected on any site;

(h) the amenities to be provided in relation to any site or buildings on such site whether before or after the erection of buildings and the person or authority by whom such amenities are to be provided;

(i) the prohibition or restrictions regarding erection of shops, workshops, warehouses or factories or buildings of a specified architectural feature or buildings designed for particular purposes in any locality;

(j) the maintenance of walls, fences, hedges or any other structural or architectural construction and the height at which they shall be maintained;

(k) the restrictions regarding the use of any site for purposes other than the erection of buildings;

(l) any other matter which is necessary for the proper planning of any regulated area and for preventing buildings being erected haphazardly in such areas.

No person shall undertake or carry out the development of any site in any regulated area without the previous permission of the Prescribed Authority in writing. If, at any time, after permission has been granted, the prescribed authority is satisfied that such permission was granted in consequence of any material misinterpretation made or any fraudulent statement or information furnished the prescribed authority may cancel such permission,

for reasons to be recorded in writing. Any work done there under the previous permission shall be deemed to have been done in an authorised manner.

Any person who undertakes or carries out the development of any site or erects any building or make or extends any excavation or lays out any means of access to a road in contravention of any directions without the permission, shall be punishable with fine which may extend to ten thousand rupees and in the case of a continuing offence, with a further fine which may extend to five hundred rupees for every day during which such offence continues after conviction for the first commission of the offence.

The State Government may by notification in the official Gazette give directions on all or any of the matters referred to in section 5 for any regulated area or all regulated areas in general.

Any order of refusing or granting any permission may within thirty days from the date of such order, prefer an appeal to the Controlling Authority and the order of the Controlling Authority shall be final and shall not be called in question in any court.

The State Government may, at any time either on its own motion or on application made to it in this behalf, call for the record of any case disposed of by the Controlling Authority for the purpose of satisfying itself as to the legality or propriety of any order passed or direction issued and may pass such order or issue such direction in relation thereto as it may think fit.

Seminar on  
Building Bye-Laws, Zoning and  
Sub-division Control  
(March 11-12, 1969)

Administrative Aspects of the Enforcement  
of Building Regulations

by  
Deva Raj

Indian Institute of Public Administration  
(Centre for Training and Research in Municipal Administration)  
New Delhi-1.

## Administrative Aspects of the Enforcement of Building Regulations

Deva Raj

The enforcement of building byelaws involves a most sensitive area of civic administration. No other aspect of the infringement of municipal laws, rules and byelaws brings the citizen in such direct confrontation or even collision with the municipal machinery. Long objection statements to building plans and their repeated rejections, unauthorised constructions, prosecutions, demolition orders and court injunctions are a part of the see-saw struggle between the municipal machinery and the private citizen undertaking to erect or re-erect a building, to subdivide land or lay a street etc. The end result is that in most cases the unauthorised construction survives the din and fury and after protracted correspondence and spot inspections, a revised plan is finally accepted as a compromise in lieu of a compounding fee.

The unauthorised construction is often alleged to be encouraged and abetted by the incorrigible mistry or construction agent, the building inspectors and the inevitable wirepullers. There is a feeling, often exaggerated, that a law abiding citizen following the rules strictly would hardly be able to complete construction for years, involving wasteful expenditure. The purpose of this paper is just to give an indication of some of the factors that contribute to this state of affairs, as follows:-

- (1) There is considerable delay in the sanction of plans. Most of the municipal laws provide for a limit of 30 to 60 days within which plans have to be disposed of - either sanctioned or rejected with objections. In most cases the plans are returned as being incomplete or being in some specific respects contrary to byelaws or for lack of necessary documents. Often the citizen has to prepare a revised set of plans and resubmit them. It would not be surprising if a good number of them are returned again, sometimes with fresh objections.
- (2) The delay in sanction is also caused by the need of reference of a plan to a number of authorities such as the Health Office, the Town Planning Organisation if any or the State Public Works Department and the like. They may even be returned for obtaining clearance of some such authorities that may have some relationship to the site in question.
- (3) The submission of defective and incomplete plans is generally due to the absence of adequate number of qualified and experienced draughtsmen and architects in all but the major cities. There is also a tendency as the part of the citizen to cut expenses on what they regard as an intangible service. Even the approved draughtsmen or architects are known to make plans that may be contrary to the rules and

conditions applicable to a site.

(4) It is not always convenient to get plans prepared by architects stationed and practicing in other towns and cities as the byelaws are not always quite standardised. An architect practicing in one town may find his plans in conflict with the rules and byelaws in another town - in some minor details or peculiar local features. Even in the same town the zonal plans may vary. In Chandigarh for instance, the construction of a garrage, annexe or servant's quarter in the side set back area may be allowed for a 1000 sq. yds. plot but not for a plot measuring 1300 or 1500 sq. yds. The width of front, side and rear-yards varies not only from town to town but even for plots of similar sizes in different areas of a town. Attempts to get towns and cities to adopt standardised codes have not succeeded so far.

(5) The sanction of the building plans is by no means the end of the story. In fact it is the period of construction and ultimate completion of the building that marks the most eventful part of the citizen's experience with the municipal machinery. The byelaws may require a notice to be given by an intending builder about the time he proposes to start construction. Most of the older byelaws do not provide for it. In any case this part of the obligation is often ignored both by the citizen and the municipal

authorities, who fail to undertake inspection of the layout of the building at the very outset which might have helped in avoiding a good part of the later objections about variations from the sanctioned plan and violation of byelaws. There is hardly any building that is completed in strict conformity with the sanctioned plan. There are no regular inspections for check up and advice by the municipal staff.

The Building Inspector is, however, vigilant enough to serve a notice of unauthorised construction at some stage. Flagrant breaches may, however, start a chain of demolition notices, stay orders, court injunctions and the like, while the construction may be carried on, so that it may often be too late to enforce demolition. The situation is more complicated if it is a case of re-erection, additions and alterations.

The deviations from the sanctioned plans may or may not be contrary to byelaws, and the latter make the final approval of a plan more difficult.

- (6) Some municipal Acts or byelaws make the obtaining of a completion certificate compulsory. The occupation of a building without such a certificate being an offence. Most of the older byelaws, however, made no such provision but in any case unauthorised constructions have to be incorporated in a revised plan. The sanction of a revised plan

and issue of a completion certificate is often a protracted process and takes much longer than the sanction of the original plan. Houses are often occupied before a completion certificate is issued. In the meantime, the citizen must pass through an anxious period of demolition threats and court prosecutions until the matter is compromised or payment of a compounding fee, which leaves a considerable room for discretion exercised often in respect of municipalities by the elected Chairman or a small Committee. This introduces a considerable element of speculation and latitude about the extent to which unauthorised construction can be indulged in.

- (7) It has been seen that the process of sanction of plans is made very much easier and expeditious and the extent of deviations from plans considerably diminished, if there is a corps of draughtsmen, architects and supervising engineers for various categories of buildings, duly approved and licensed according to precise rules and byelaws. They can act as bridges between the citizen and the administration and should be made answerable at least for any violation of byelaws. Most municipal bodies have at best only a loose code. The smaller towns and cities also generally fail to attract the services of the qualified architects. This points to the need of opportunities of professional education and training at the intermediary level to meet the needs of these urban areas.



- (8) The architects often complain about the lack of competence and due knowledge and training of the building inspectorate and even of the civil engineers, who are often entrusted with the duties of processing the sanction of building plans, but lack the training or the experience or even the will to learn and understand the architectural aspects of a building plan. The building staff is often kept much too busy not with technical regulation of construction, but in dealing with prosecutions, service of notices and demolition orders, and actual execution of such orders. The approach is administrative or bureaucratic. The municipal staff, therefore, needs not only training in some architectural and enforcement aspects of building plans but an orientation of attitude in dealing with the prospective builder by way of offering guidance and direction through timely inspections to avoid any serious pitfalls. The disposal of plans can also be expedited by doing away with frivolous and minor objections and first hand examination of the plan and the necessary documents at the time of submission.
- (9) There is equally a need of citizen education and building up of civic traditions to discourage and to disapprove any gross violations such as encroachment of set back areas, lack of proper window space and the like. The pressure groups must in no case plead

on behalf of such recalcitrant elements, in the larger interests of their city.

- (10) Last but not the least, there is need for simpler standardised building codes that should take into account not only the ideal but also the limitations of the citizens and the difficulties of the urban local authorities, who have to enforce these codes. Sometimes the documents and details required to be submitted are too ambitious and superfluous. The setbacks etc. laid down prove excessive in certain areas. The most significant failure of a good building code is to provide for a discriminatory treatment of the central areas. While a model standard building code provides for the ideal conditions, the building byelaws of a municipality are conditioned by the requirements of the more congested parts of the towns. Conditions in the central areas are such that it is impossible to enforce any modern code in respect, particularly, of such matters as size of the plot, setback areas and height of building in relation to the width of streets and lanes.

In short the task of ensuring against ugly and unhygienic constructions and promoting pleasant environments calls for a cooperative effort on the part of the municipal authorities, the experts, the lay citizens and the political groups. We need not only good byelaws but also their enforcement in a manner as to give a face-lift to our cities.

Seminar On  
Building Bye-laws, Zoning and  
Sub-division Control  
(March 11 - 12, 1969)

Development Control Through Zoning Laws,  
Sub-division regulations and Building  
bye-laws.

by

G.B. Krishna Rao  
Assistant Professor of Planning  
School of Planning & Architecture,  
New Delhi

Indian Institute of Public Administration  
Centre for Training and Research in  
Municipal Administration  
New Delhi

Development control through zoning laws,  
sub-division regulations and building  
bye-laws

by

G.B. Krishna Rao

---

Significance of Development Control

Most of the land in urban areas is under private ownership. Due to paucity of funds and other practical difficulties, it is not possible for public authorities to acquire large tracts of lands within municipal limits for being developed in a planned manner. Hence to achieve this objective, the authorities will have to depend heavily on using 'police powers' by enforcing zoning laws, statutory town-planning scheme provisions, building bye-laws and municipal acts provisions on land developments undertaken by private individuals.

Control over development and use of land and buildings by local authorities may appear to be an interference with traditional property rights and individual liberty but such control in some degree is inevitable if chaotic growth of towns is to be avoided. The primary purpose of land-use controls has been traditionally taken to be to 'promote the health, safety, morals and general welfare of the community'.

In fact during the last hundred years, the growth of towns and cities in India has been influenced more by the enforcement of municipal acts provisions and building bye-laws and in some cases due to the activities of the city-improvement trusts rather than by implementation of Master Plans.

There is a Municipal Act in every State in our country and this Act is automatically in operation in all municipal areas. Large metropolises like Calcutta and Delhi are governed by a separate Municipal Act (e.g. Calcutta Municipal Act 1951). These municipal acts contain vast powers and a municipal body could, under the Act, do almost anything ranging from prohibiting factories, godowns and huts in certain areas to prescribing buildings lines and street elevations. However, the local authorities have not so far properly utilised all the powers available under the municipal Act.

A Town-planning Act, (which exists in every State except West Bengal, Jammu & Kashmir ) really comes into force only when the Master Plan or an area planning scheme has been prepared and got sanctioned under the provisions of this Act. The significance of development control through the enforcement of municipal act, zoning laws and building bye-laws arises from the fact that these are the only instruments available for controlling effectively developments in cities till statutory planning schemes are finalised and especially in areas lying outside the limits of such planning schemes (only a limited

number of such schemes have been undertaken and that too in some cities only.)

### SUBDIVISION CONTROLS

Due to increasing demand for plots for erection of houses, factories and other structures, the owners of agricultural and vacant lands outside the built-up areas of cities sub-divide their lands into plots and streets and sell them. Sub-division regulations give local authorities powers to exercise control over this land sub-division.

In America, sub-division regulations have to be framed and promulgated by the local authorities. In India powers for control over land sub-division are available under the Municipal Act and there is no need to frame separate sub-division regulations except in cases of new industrial townships where the municipal act may not be in operation.

There is an obligation, normally under the municipal act, requiring that if any owner of land utilises or sell sites for buildings, he shall save in such cases where the site abuts an existing street, lay down streets giving access to the sites. He is required to send a proper layout plan showing plots and streets to the local authority and obtain its approval before he sells plots (e.g. Sections 370 and 371 of the Calcutta Municipal Act). If the land in question falls within the limits of a planning scheme, notified under the town-planning act, then the Municipal Council will take into consideration the scheme proposals and scheme bye-laws

while scrutinising the layout application.

The municipal act also specifies normally that the streets shown in the approved layout plan should be properly 'levelled, paved, metalled, flagged, channelled, sewerred, drained and lighted' to the satisfaction of the Council before the plots are built upon (e.g. Section 375 of Calcutta Municipal Act). Thus no licence should be granted for construction of a building on a plot unless the above-mentioned conditions are satisfied. A street shown in the approved layout plan may be declared as a public street by the Council on a petition sent by the owners of adjoining plots if it has been formed in the manner specified in the Act.

#### Defects in sub-division controls

The above mentioned powers for sub-division control in the municipal act sound good and adequate for ensuring an orderly growth of towns. But here there is a wide gap between theory and reality mainly due to the indifference of land lords to these laws and also due to the slackness in law enforcement.

Land owners keep sub-dividing their lands as plots and streets in our cities and sell the plots without getting the layout plan approved and without caring to form the streets in the prescribed manner. The Registration department is not required to verify if a layout plan was approved by the municipality before registering a sale transaction for a site. Even if this comes to the notice of the local body and if they take action (which they rarely do), the party is usually

prosecuted in a court and let off with a nominal fine.

While the landlord has thus indulged in land speculation and reaped good profits without discharging obligations laid down by the municipal act, the parties who have purchased the plots, do not feel the responsibility for forming the streets leading to their plots before erecting structure on them. They somehow manage to get licences for erecting structures even though there is no proper access to it. Later political pressure is exerted on the municipal executive officers for taking over these unauthorised streets and declaring them as public streets even though they are not formed to the prescribed standards. These streets become a liability later on the municipal exchequer, which has to be utilised for forming them properly. The municipal act does give powers to the local body to serve notices on owners of plots abutting the streets to carry out necessary improvements, and in case of non-compliance with notices, to execute the improvements itself and recover the costs. But such powers are rarely exercised.

It is under these circumstances that there is development of unauthorised colonies, scattered and ribbon developments in the suburbs of our cities. One could see examples of such scattered development anywhere outside the Calcutta corporation limits, be it in Dum Dum area or Tollygunje within the Calcutta conurbation. Quite often houses are built on plots having access through a raised track between two agricultural fields.



The only remedy to this state of affairs, apart from stricter enforcement of sub-division regulations, is for the Registration Department to insist on a no-objection certificates from the municipal authority before registering any sale documents for lands within municipal limits and their vicinity. This suggestion has been made earlier by town-planners in this country but the Registration Department has shown reluctance to agree to this procedure on the ground that it would affect the efficiency of registration work. It would be unfortunate if each Government Department, in pursuit of its own efficiency in a water-tight manner, hesitates to incorporate a procedure in its working whereby a vital public purpose, though not related to that department, is served due to adoption of that procedure. The various government departments, after all, are wings of the same government which exists to serve the public.

A common defect with the sub-division regulations in the municipal act is that the party sub-dividing an extensive area of land into residential plots is not obliged to set apart some land for parks and other community facilities with the result that after the housing colony has developed the local authority will have to compulsorily acquire suitable sites for public purpose. The only exception to this, to my knowledge, is the Andhra Municipalities Act 1965 which provides that the owner should set apart in the layout adequate sites for playground or park or school or any other public purpose (see

section 184-2b of the Act). Even this act does not specify that such sites kept for public purposes should be gifted by the owner to the local authority. The sub-division regulations in the municipal acts need to be amended suitably in this regard.

Another limitation of the sub-division provisions in the municipal act is that they would not operate if plots abutting an existing street were sold. This may create some planning problems later. For instance, after all the plots abutting an existing street are sold, it may be difficult later to take a street connection from the existing streets to the sites behind the plots, already sold out and built upon.

Due to inheritance practice, the ancestral property is sub-divided equally among the successors when it is passed on from one generation to the next causing in urban areas fragmentation of property to a size below the desired minimum levels and this often leads to creation of slums in the built-up areas. Law should prescribe a minimum size below which a plot should not be sub-divided even for purposes of inheritance.

#### ZONING

The term 'zning' of a land is generally understood to refer to designating the land for a particular use (say commercial or residential).

Zning, primarily an American innovation, was for first time introduced in 1916 when the New York city adopted a zoning ordinance for controlling the skyscrapers. It is uncommon

to see an American city without a zoning ordinance though there may be several cities in that country without a master plan.

Zoning has not been practised in U.K. where development control is exercised directly from the town development plans and under the provisions of the town-planning act. In U.S.A. on the other hand the Master Plan has been taken to be a general policy guide-line for public and private investments and actually zoning has been practised in isolation from planning and often predates planning. Of course, theoretically zoning ought to be a tool for implementing the Master Plan with regard to development control. While there is a certain amount of discretionary power vested with the planning officials in the British development control mechanism, the American traditional distrust of bureaucracy leads them to opt for a rigid system of standards and rules, which constitute the zoning law.

In India, zoning laws are relatively unknown and usually there is no statutory basis for enacting zoning laws (in the form they are practised in U.S.A.). Bombay and Delhi are among the very few cities in India, having zoning regulations. In many cities in southern India, zoning has been attempted in a limited way by declaration of residential and industrial areas, under the powers conferred by Public Health Act and the municipal act. The development needs of particular localities, has also been met in some cities by preparing detailed planning schemes (which would include a scheme map

and scheme bye-laws on similar lines to zoning laws) for those localities. The zonal development plans of Delhi are examples under this category.

### Objectives of Zoning

The object of zoning, to quote New Jersey Court (1953) is 'protect the private use and enjoyment of property and to promote the welfare of the individual property owner. In other words promoting the general welfare is a means of promoting the general welfare is a means of promoting private property'. I may also refer here to the often-cited statement of Justice Southerland that 'a nuisance may be merely the right thing in the wrong place like a pig in the parlour instead of the barnyard'.

The major objectives of zoning are:

- 1) Safeguarding the character or amenity value of a residential or any other type of area by ensuring that there will not be any intrusion of incompatible uses into that area and by imposing restrictions on minimum open space around the buildings.
- 2) Conservancy property values (which is also achieved by the above measure).
- 3) Controlling the density of development by limiting the size (bulk) of the structures and thus preventing congestion.
- 4) Promoting most beneficial location of industry and business by reserving appropriate lands for these uses.

While building bye-laws and sub-division regulations impose uniform standards over all plots in a municipal area, the advantage of a zoning law lies in the fact that it prescribes different standards of development control for different localities in a manner appropriate to them. For instance, the front set-back for buildings could be more in a newly developing suburb than within the old built-up areas of the city.

#### Contents of Zoning Ordinance

Zoning ordinance sub-divides the city into districts in each of which specified uses are permissible and restrictions regarding the height, bulk and set-backs for the structures are specified for each district. A zoning ordinance consists of a map and a written statement.

Below are specified some of the typical use-groups from the zoning ordinance of New York city:

Use-Group 1	Single family detached residential development
Use-Group 2	Community facilities such as schools, libraries or museum
Use-Group 4	Other community facilities such as Churches, community centres or hospitals
Use-Group 6	Retail and service establishments which are need to serve local shopping needs
Use-Group 10	Large retail establishments such as departmental stores
Use-Group 17	Manufacturing uses which can normally conform to high performance standards and are compatible to adjacent residential areas

Use-Group 18

Industrial-uses which involve considerable danger of fire, explosion or other hazards

For each use-district, the ordinance specifies those uses or activities which can be permitted in that district. For instance, community facilities like schools and local shops are permitted in a residential district. The ordinance distinguishes between types of industrial uses by laying down 'performance standards' covering noise, vibration, smell, smoke, fire, explosive hazards and glare or heat. It also often specifies the off-street parking and loading requirements of all use.

The zoning law achieves density control over development by specifying the height of structures, minimum depth of side, front and rear yards, minimum lot sizes and frontages and percentage of lot to be built upon. Building bulk is controlled through floor-area ratio.

Non Conforming Uses

These are the existing land-uses which do not conform with the zoning proposals (e.g. factory in a residential area). Zoning laws attempt sometimes to get rid of non-conforming uses through 'amortization' (i.e. the use should be shifted or brought to the required performance standards within a specified number of years). No compensation is payable for amortization, which has been pursued vigorously for such obnoxious uses as tanneries and junk yards. Buildings having non-conforming uses cannot be extended or re-built.

### Administration and Review

The zoning ordinance is usually prepared in U.S.A. by the planning department of local authority or by a City Planning Commission. After approval by the city council, the laws are administered by the building permit department of the local authority.

Appeals against orders passed on building applications in pursuance of zoning laws are made usually to a Board of Appeals, a quasi-judicial body, which can grant exemption or 'variances' from enforcement of zoning laws in cases where such enforcement would cause a significant degree of hardship upon a party and when such a relief would not be a notable interference with the aims of the zoning law. Appeals are viewed rather liberally in U.S.A. due to their traditional sympathy for the man who builds something or invests in business. Zoning laws are also amended frequently.

### Defects of Zoning Practice

The following remarks on defects of zoning laws are made in the light of American experience with these laws.

1. Zoning has usually been a compromise with existing land-use pattern. It has rarely been used effectively to guide the pace and location of new development.

2. Zoning has not been effective normally in moving out non-conforming uses. Lack of provision for payment of compensation for amortisation of such uses has been a serious limiting factor.

3. Administration of zoning is very cumbersome, requiring considerable personnel. As a result many local authorities have little time and energy left for the more important task of planning.

4. Instead of being a follow-up of a master plan, zoning has often preceded planning. To cite J.L. Taylor, 'it is no wonder that the zoning tail often waves the planning dog'.

5. Zoning sometimes proves to be too rigid a set of regulations to deal realistically with the dynamic changing urban area. For instance in central areas of cities, there is an intensive mixture of several land-uses and one cannot always designate such areas for a particular use only.

6. Exemptions from operation of zoning laws are granted rather too frequently and almost 90% of appeals are upheld. While development control, like planning, should have a certain degree of flexibility, it should not yield to the play of almost every vested interest. Americans seem to believe that land-use control is 'right in theory but a political football in operation'.

7. Zoning places emphasis on distinction between + uses rather than on relationship that exists between them, which is the real objective in planning.

8. Like in the British land-use control system, zoning enforcement officials should have some discretionary power to grant exemptions in minor cases without burdening Board of Appeal with all such cases.



9. Zoning leads to a degree of social and economic segregation impossible to achieve by any other method and has often been used as a tool for serving the interests of certain classes of people (e.g. higher income 'whites' to the exclusion of Negroes).

In view of these defects, many Americans are themselves reevaluating the utility of zoning practice and some regard it as an incubus to be thrown away before there can be any real progress in planning.

#### Applicability of Zoning in India

The objective of zoning is normally attained in Indian cities through the enforcement of land-use proposals in the Master Plans and the detailed planning schemes (which also include scheme bye-laws) for localities needing priority. In cases where delays are involved in preparing detailed planning schemes, it would be convenient to frame zoning laws having different development standards for different areas and this would not take as much time as the former.

However, due to paucity of funds and technical staff, it may not be wise to make promulgation of zoning laws obligatory for all Indian cities and this could be made optional and left to the discretion of the local authority. Our larger metropolitan areas like Calcutta and Madras should have zoning laws at least for key areas.

Adequate provision must be made either in town-planning act or the municipal act powers to local authorities to enact zoning laws whenever they find it appropriate to do so.

#### BUILDING BYE-LAWS

The Building Regulations are usually framed by the State Government under the powers conferred by the municipal act. In some acts like the Calcutta Municipal Act and Andhra Pradesh Municipal Act, the building regulations constitute a schedule to the municipal act.

The building bye-laws, if enacted, are applicable to all sites within the municipal area. They specify standards relating to structural safety, internal dimensions of rooms, light and ventilation, open spaces to be left around buildings, and sanitation. Under the municipal act, no party can construct or reconstruct or make additions or alterations to a building without obtaining a licence from the municipality, which takes into account the building bye-laws as well as provisions of municipal act and related laws while dealing with the building applications. In some cities, the executive authority of the municipality has powers to pass final orders on the building applications while in some other municipalities the applications have to be placed finally before a Standing Committee of the Council. The Director of town-planning of the State or the appropriate committee of the municipality as the case may be, usually have powers to grant exemptions

from the operation of building bye-laws in special cases of hardship.

The details of contents of the building bye-laws are too well known to be repeated here.

#### Defects of building bye-laws

1. Most of the standards prescribed in the bye-laws are obsolete and outdated. Some of these bye-laws were framed more than two decades ago (e.g. Building Rules 1942 of Madras). It looks absurd to control modern architectural design with these outdated bye-laws. For instance, these bye-laws usually require a minimum height of 10 ft. for a living room and also a thickness for walls which is uneconomical.
2. These bye-laws need to be brought upto-date in keeping with modern architectural trends and standards of public hygiene. The Indian Standards Institute around 1955 drafted and circulated Model building laws among the concerned public authorities but the response does not appear to have been encouraging.
3. The standards prescribed in the building bye-laws become the maximum to be followed by the developers instead of being the minimum they are intended to be.
4. The standards in the building bye-laws with regards to front side and rear spaces are usually the same irrespective of the size of the plot (e.g. whether the site is 1/12th of an acre or  $\frac{1}{2}$  an acre, the same 10 ft. rear open space is normally required).
5. The standards prescribed in building bye-laws are uniformly enforceable to all parts of the city irrespective

of particular needs of any locality. This defect will evidently have to be overcome by framing zoning laws or zonal development plans superceding the relevant provisions of building bye-laws.

6. In some cities, there is more than one authority exercising development control (e.g. the municipal authority for building bye-laws and municipal act and also the city improvement trust for enforcing its statutory planning scheme provisions). This causes unnecessary harassment to the developers who have to apply to both authorities for building permit.

7. It is well known that there is much slackness and corruption as well as interference by elected representatives in the enforcement of building bye-laws. It is worth considering whether in our metropolitan areas we ought to take away the development control from the hands of the municipality, which could do only policy-making and perhaps the city-improvement trust or a government department could look after development control with better results.

Finally, it must be stated that while it is a laudable objective to seek more legal powers for controlling the urban environment, it may be worthwhile to give deep thought to the working of the machinery which is now charged with the responsibility of enforcing these laws. In this country we ought to start thinking of initiating radical reforms in our local self-government institutions before we could make

any real headway in urban planning or in improving the quality of civic services in our cities.

Seminar on  
Building Bye-Laws, Zoning and  
Sub-division Control  
(March 11-12, 1969)

Preparation of Building Bye-laws

by

D.Ajitha Simha

Indian Institute of Public Administration  
(Centre for Training and Research in Municipal Administration)  
New Delhi-1.



## ELABORATION OF BUILDING BYE-LAWS

by D. Ajitha Simha

### SYNOPSIS -

Building construction has been subjected for many years to legal control in the interest of safety and health. While there is general agreement on the need for this, specific applications in the form of building bye-laws have been frequently criticized on the grounds of imposing excessive expense and of failing to make adjustments to changing conditions.

The responsibility for preparing or revising building bye-laws usually falls upon local committees. These are called upon to do a great deal of tedious and exacting work. One of their first problems is to determine what source material is available and how they should proceed.

In this discussion, a description is given of how such work is done and useful sources of technical information are indicated. Some of the problems that are encountered by local committees are mentioned, including what basic principles are involved; methods of presentation, arrangement, and numbering; advantages of using national standards and ways of referring to them; methods of recognizing new materials and new methods of construction; extent of delegation of authority to the building official and safeguards against arbitrary action; and other questions of major importance.

An attempt has been made to place committees in possession of sufficient information to proceed in their work with a minimum of lost motion. Not all questions can be answered with finality; since the situation is complicated by



the existence of proposals of nearly equal merit and by differing interpretations. Such differences will no doubt continue to exist for some time; but they are not of sufficient importance to be allowed to obscure the main objective of providing adequate protection without creating too much of a drag on the building industry. Constructive work in the field of building bye-law requirements has been going on continuously for some time and will exert an ever-increasing influence. This discussion is offered to supplement such work and as a contribution to the orderly development of good requirements.

1. Introduction - The building byelaws contain the constructional activity within the certain locality in the interest of safety and health of the community. This safety can be spelt out as structural safety and fire safety. It is therefore necessary that to protect the public from structural failure, fire hazards and possible public health hazards efforts be made by the local committees to draw upon existing information for making local byelaw.

It is also felt that such task could be entrusted to practising engineers, architects and the municipal officials. It would be desirable to unify these practices so that a consultant in one area need not go over a new set of byelaws if he has to take up work in a new area. This would lead directly to cost reduction both to the local bodies and for the country as such in saving useful time and materials.

2. What the building byelaw should be? - The building byelaw should be a collection of local requirements. Its purpose should be to protect the safety and health of the

community by establishment of series of technical requirements covering such topics as strength of materials, fire protection, lighting and ventilation, sanitation, exits and other matters. These requirements should be set forth in such a manner to indicate to minimum acceptable levels of such requirements leaving to builder or designer to go beyond this as far as circumstances permit. 'Performance' is the key for building byelaws and the performance requirements ensure safety of the community be spelt out leaving quite a few details open for adjustments. This is what we would call performance approach vs specification approach. The former is ideal but should be supplemented with certain illustrated examples to indicate the nature of such regulations. It would be desirable that if such an approach is taken, the major question in all building byelaws, that is, regarding alterations and additions to the buildings would be examined in the light of performance requirements and then the applicability of new byelaw could be determined on that basis to the alteration concerned.

3. Relation with other byelaws - It may be noted that there are over 2500 local bodies in the country with about 30 major municipal corporations. It would, therefore, be seen that a local byelaw should not be isolated document but should be a part of net work of requirements applicable all over the country. It would be noted that for large municipalities the byelaws would be very extensive but for smaller ones the byelaws could be smaller but they should be derived from the byelaws of the major corporations to suit the needs of the

smaller local bodies. It is clear that a unification will help the municipal body and also the practising engineers and architects so that avoidable time in conforming regulations could be saved and no library of different codes and byelaws of different areas need be compiled by the practising engineer or architects. This is also important from the point of view of different agencies, central or state, initiating construction work in some local body when the significance of unified byelaws would be greatly felt.

4. Set up of enforcing authority - Since the local body is charged with the task of protecting the people against wrong acts in so far as the importance of safety of health of people are concerned, it is necessary that the enforcing authority should have in addition to byelaws and powers technically competent people to man the departments so that a broad perspective of the local byelaws could be brought to the notice of the enforcing authority. It is emphasised that quite often building byelaws are drafted on the basis of some other existing byelaws in some other municipality and the relevance of some of the clauses for particular situation in the new municipality is obscure. In such cases a highly competent and technically capable building official could clearly see the need of such clause and suitably interpret it. It is therefore necessary that the local authority should invariably try to secure the services of competent technical person to draft and modify the byelaws and enforce them in the spirit in which they are written. If a single small municipality cannot afford such technical person of

such capability, two or three bodies of neighbouring areas could join for such services.

5. Effect on community - The building byelaw can be a good influence guiding the general course of construction in a safe manner or it can be a means of hampering the growth of the community that it is supposed to protect. This is because if the requirements are severe as to impose higher building costs than prevailing in other cities; new industries can be diverted elsewhere, rents may be increased. If the regulations are such that they bear no relations to services such as water and electricity, the community is very severely affected. It is therefore necessary that this aspect of the effect of the building byelaws be recognised by the local bodies when drafting the same.

6. Methods of starting of new building byelaw - In the various local bodies in India some sort of building byelaw exists either in written form or endorsing some other byelaw. This is not a happy position. It is therefore necessary that the technical personnel manning the departments in the local body should initiate a thorough study of the various byelaws in operation and analyse them regarding applicability to the requirements of the particular local body which will enforce this byelaw. It is therefore necessary that cognizance of this situation be taken by the local body and sufficient facilities be provided to start a national building byelaw. For this the following are necessary:

- a) Appointment of a local committee with a small

membership who could bring in their technical capacity for drafting the byelaw.

- b) A study of the needs of the city be undertaken which will give some ideas of the physical layout nature and location of industries, prevailing heights of buildings and type of construction etc. This will enable the drafting authority to have a clear idea of framing the building byelaw.
- c) Collection of available material for the preparation of the byelaw is more important. In this connection, it may be noted that the Indian Standards Institution has prepared a number of standards and codes of building construction which may be of assistance to the local authority. In addition Model Building Byelaws and National Building Code of India prepared by the Indian Standards Institution are available which would be of assistance in drafting of the byelaw. It is strongly felt that it is undesirable to copy the byelaw of one city or the other because it is quite likely that the other city might have also done a similar job and quite often the regulations contained in some of these old codes are outdated and do not apply in the context of present technical advancement in building industry. It also creates complications because of some requirements

are copied from some byelaws and others from others. Correlations are not easy too since the context of these clause are outdated. Therefore it is strongly felt that for a new byelaw or for a revision of byelaw enough information may be collected and, if necessary, assistance from Indian Standards Institution may be availed of for this purpose so that a good document can come out.

6. Arrangement of clause in the byelaw - It may be quite often noticed that when comparing different byelaws of different cities, the arrangement of clauses for a particular item is not in the same sequence nor the same process continues in the byelaw. It is therefore suggested particularly from the user point of view that the arrangement of clause be organized in the following manner:

Part I	DEFINITIONS
Part II	ADMINISTRATION
Part III	GENERAL BUILDING REQUIREMENTS
Part IV	FIRE PROTECTION (OR CLASSIFICATION OF BUILDING AND REQUIREMENTS BASED ON OCCUPANCY)
Part V	BUILDING MATERIALS
Part VI	STRUCTURAL DESIGN
Section 1	Loads
Section 2	Foundations
Section 3	Wood
Section 4	Masonry
Section 5	Concrete
	Plain and Reinforced Concrete
	Prestressed Concrete

Section 6	Steel
Section 7	Prefabrication and Systems Building
Part VII	CONSTRUCTIONAL PRACTICES AND SAFETY
Part VIII	BUILDING SERVICES
Section 1	Lighting and Ventilation
Section 2	Electrical Installations including Lifts
Section 3	Air-conditioning and Heating
Section 4	Accoustics and Sound-proofing
Part IX	PLUMBING SERVICES
Section 1	Water Supply
Section 2	Drainage and Sanitation
Section 3	Gas Supply
Part X	SIGNS AND OUT-DOOR DISPLAY STRUCTURES

It would be notified that with this arrangement it is possible to cater to both bigger and smaller municipalities by elaborating against the items given, taking into account the building activity in that particular area. This will also help in consulting engineer or architect from various other areas to immediately check up the requirements of the local body knowing fully well the common arrangement in the byelaws. Therefore it is urged from the user point of view that such an attempt at arranging clauses in a particular manner be made.

7. Use of Indian Standards - As pointed out earlier, it is very strongly felt that considerable amount of time and effort has been spent for preparing national standards on various aspects of building activities by the Indian Standards Institution. It is, therefore, suggested that use of these standards be made in drafting the local byelaws either for materials or for design or for construction or

for other aspects such as lighting, ventilation, electrification etc. With these the local byelaws will also have the benefit of technical regulations accepted by the country as such and any modification could be done as and when the standards are revised. In fact, to make this task a little easy for the local bodies particularly the major ones, the National Building Code is being prepared by the Indian Standards Institution making use of existing Indian Standards on various aspects of building construction. It is also written in the form suitable for option of the local bodies.

8. Acceptance of new materials and methods - It is quite often felt that the results of technical advancements either within the country or abroad are not fully utilised by our agencies because the local byelaws do not permit the use of new materials or methods of construction. It is therefore necessary that cognizance be taken for such advances and a suitable clause included in all byelaws to permit use of new materials and methods of construction provided they satisfy the authority concerned as to its suitability comparable to other constructional materials and methods of construction. For this purpose the local authority may recognize the established national laboratories to issue such certificates regarding suitability. This is quite a workable proposition.

9. Revision and amendment of the byelaws - It is strongly felt that the byelaw should be continuously examined, amended and revised so that newly emerging factors for building construction should not be ignored particularly



where the economies are concerned. It is therefore strongly suggested that the technically competent authority with the local body should make it a point of examining all objections and interpretation of byelaws and issue as a matter of course regular amendments and at regular intervals say of 4 to 5 years, revise the entire building byelaw and republish it. If this is done, it is quite possible that the purpose for which the byelaw is made would be fully served, that is, to protect the community without avoidable wastage or unnecessary restrictive regulations.

10. Board of appeal - The building byelaws are not always very clear and, therefore, more than one interpretations are given of a clause. It is therefore necessary that for such a document, the owner of property would always have some dissatisfaction vis-a-vis the decision of the enforcing authority. In such case a Board of Appeal of technically competent personnel not necessarily connected with the local body, would be useful to refer the matter to so that they can give an interpretation of the clause in the interest of the community. It is therefore strongly urged that as a matter of course every local body should have a Board of Appeal so that the building byelaws are interpreted in the way they are supposed to.

Conclusion - In this article an attempt has been made to indicate the lines on which the local byelaws should be drafted. As already pointed out that Indian Standards Institution has enough information on the subject from which local bodies

could draw their material. The Model Building Byelaws and the National Building Code would also assist in the drafting of the respective byelaws of various cities.

---

T\*

Seminar on  
Building Bye-Laws, Zoning and  
Sub-Division Control  
(March 11-12, 1969)

Zoning & Sub-Division in Greater Bombay

by

DR. B. K. BHATT, M. A. BHATT, M. A. BHATT, M. A. BHATT

Indian Institute of Public Administration  
(Centre for Training & Research in municipal Administration)  
New Delhi-1.

Zoning & Sub-Division in Greater  
Bombay

In fact, after declaration of our intention to prepare a draft development plan in 1958, some sort of control on the lines of what was envisaged in our Development Plan recommendations was already started in the development activity. These controls tended to become more and more precise so that after the development plan and the Development Control Rules laid down thereunder were approved by the Corporation the controls so far as we were concerned became absolutely specific. The Development Plan recommendations also the Development Control Rules did not undergo a substantial modification during the scrutiny at the Government level and what was finally introduced as a legal measure on February 9, 1967 was almost in conformity with what the Corporation had accepted. Some of the deviations which were further made tended to make rules more strict in respect of F.S.I. as F.S.I. came to be reduced in certain areas mostly in the city and that too in the southern most part where the existing development is already very intensive, or tended to remove concessions extended hitherto to areas like villages or Gaothans or also tended to have a dual control for restricting the density of population in the form of both the F.S.I. and also the tenement-per-acre rule - the latter not having been featured in the D.C. Rules approved by the Corporation. The last two years since the introduction of final D.C. Rules have revealed some of the basic shortcomings in the practical implementation of some of the provisions. We have also

taken measures to remove these shortcomings. Before dealing with both these, I am giving below the basic concepts underlying the formulation of the Development Plan. (1) Zoning:- It is a key-note of the Development Plan inasmuch as the growth of the city which has taken place earlier purely due to the exigencies of the circumstances which was definitely considered to be pre-judicial to the healthy growth of the city was decided to be done away with and specific users introduced in the various areas earmarked therefor. The area falling within the jurisdiction of the Municipal Corporation for Greater Bombay was thus divided into 10 zones with varying F.S.Is. and the tenement-per-acre rule for each one of them. Adequate reservations have also been made for public users which inter alia also include users necessary at Government and semi-Government level. The main zones are-

- (1) Residential;
- (2) Residential with shopping line
- (3) Commercial
- (4) Service Industries;
- (5) General Industrial Zone 1-1
- (6) Special Industrial Zone 1-2.

Specific use provisions have been made for each one of them and the placements of the various zones have been so made that need of the community in all the spheres can be met in full without long distance travelling being involved.

Any plan for its successful implementation must have the following basic characteristics:

(1) It should be capable of being implemented without putting an undue financial strain on the implementing authority.

(2) It should aim at solution of the basic problems confronting the city without making the things worse in any way by introducing rules etc. which the people will have a basic tendency to violate.

(3) The essential and basic needs of the community should be reflected in the plan and therefore the people should feel that it is their own plan meant for their general betterment and good and should have the feeling of involvement and complete participation in its implementation.

The last two years of the functioning have exposed some of the shortcomings either in one or more of these areas and we have taken steps to remove some of them and measures for redressing a few others need to be taken at different levels. I have given below these in greater details:-

(2) F.S.I.:- The concept of F.S.I. is co-related with the idea of controlling densities of population. What in fact is controlled is the floor space and since the floor space is co-related with the occupancy rate, indirectly we control the densities of population. If however our presumptions of occupancy rate are not borne out in actual practice, the basic idea of controlling the densities of population by introducing f.s.i. control will be vitiated. In respect of non-residential buildings, the F.S.I. control does control the floor space necessary for giving certain services like commerce, industry, service industry etc. to the people who depend on

these areas for these services. With the introduction of the Development Plan and on account of our failure to press our claim to recover betterment claims which in fact is the keynote of implementation of the proposals embodied in the Development Plan (of course by launching Town Planning Schemes where this principle is legalised) there was a general spurt in the land values. The cost of construction for structures meant for various types of users being almost identical, structures meant for purposes of education, public health, religion etc., social and public institutions found it extremely difficult to launch development. This difficulty was overcome by introducing amended rule 10(2) whereby with the previous approval of Government the Floor Space Indices specified may be permitted to be exceeded, in respect of buildings of Educational and Medical Relief Institutions and Government and Semi-Government Offices and luxury hotels and in respect of any building on the top of which any revolving structure is to be constructed as a place of public entertainment or amusement.

(3) The Special Consulting Surveyor to the Government of Maharashtra who was assigned the work of scrutiny of the Development Plan submitted by the Corporation to Government for approval had all along felt that control on densities would not be complete unless it is coupled with the control on density with tenement-per-acre rule. The tenement-per-acre rule envisaged even a smallest tenement of 400 Sft. the cost or rent of which was not within easy reach of an average middle class or poor class man to which class 90% of the

population of the city belongs. Obviously, the tenement per-acre rule was either likely to be flouted by introducing occupancy rate in excess of what was sanctioned or if observed in letter and spirit would completely oust any provision in the private sector for housing meant for the middle and poor class. The tenement-per-acre rule was also therefore sought to be appreciably relaxed.

(4) Certain areas in respect of features like additional stair-cases provided beyond required, extra fast moving lifts in multi-storeyed buildings, plazas for the general recreation of the occupants of the building including their children, etc., lift rooms at intermediate floors, weather maker rooms, areas required for equipments of fire-fighting, etc. were sought to be deleted from the computation of the F.S.I. calculations whilst working out Floor Space Index.

(5) Layout and Sub-divisions:- It is obligatory under Development Control Rules to submit a layout showing internal roads, access roads, 15% or 10% (as the case may be) recreation ground, keeping vacant the sites earmarked for public users in the Development Plan etc. Large chunks of land vesting in private ownership which have not yet been incorporated either in the Development Scheme or the Town Planning Schemes which follow as a corollary of the Development Plan were sought to be developed by submitting layout and/or sub-division proposals. In fact, this is analogous to the development undertaken by the Improvements Committee of the Corporation by launching more and more Improvement



Trust Schemes for developing maiden chunks of lands though not on as massive a scale as is being done by the Corporation. Whereas however, development by way of roads, sewers, Storm Water Drains, water mains, gardens, schools, markets etc. is a 'must' under the development schemes, this essential obligation was entirely ignored by private developers as a result of which a lot of hardships is caused to the members of the public who either go to stay in such developments as tenants or even as landlords by buying one of the sub-divided plots and developing it for their use later. This control is sought to be made more rigid as invariably high prices are charged for individual plots considering internal development sought to be made under the layout proposal. It is not only the appreciated value of land but the implementation of the proposals which appreciates the value which is of utmost importance from the point of view of the Corporation.

(6) Slum Clearance:- The late Prime Minister of India first introduced the concept at the political level of providing providing housing comprising of atleast two rooms. It was very much talked of and stressed in the various committees appointed by the Government of India for promoting public health which includes physical, mental and spiritual health also. However, measures for entertaining this basic need to the suffering slum dwellers were not launched on the necessary scale. The present financial conditions pose one problem before us whereas against complete lack of facilities whether we should aim at attaining standards which we cannot attain on account of financial shortage or whether we should

go in for relaxation of standards so as to make it capable of being practically attainable without simultaneously making them prejudicial to the basic standards of health. If 10 people huddled together in a small 100 Sft. room in an old dilapidated building situated in an environment with lack of adequate light and ventilation can be accommodated in a tenement much better than the previous one, some compromise on the standards could be recommended and accepted without insisting on the 232 Sft. tenement with an independent sanitary accommodation, the number of which that can be provided both by Government and the Corporation is but too small with due consideration to the financial position in which these public bodies are placed to-day.

(7)        Repairs to old Buildings:- Many cases have been brought to our notice where, while carrying out the repairs to buildings in pursuance to notice under Section 354 of the Bombay Municipal Corporation Act owners have chosen to repair the building amounting to almost re-construction of the buildings in contravention of the Development Control Rules. In view of the acute housing situation in the City which will definitely continue for some years, such wholesale reconstruction is permitted subject to compliance with the following conditions:-

(1)        A notice under Section 354 must have been served on the building for structural repairs.

(2)        The building shall be predominantly a residential one i.e. more than 75% of the floor area shall be in use for residential purposes which fact must be supported by the

owner submitting detailed floor plans and section of the building indicating the present users, arrangement of partitions, sanitary accommodation etc.

(3) If the building is situated on a street which is already more than 60 ft. in width or a street for which regular lines for 60 ft. width have been prescribed, front open space required under Development Control Rules shall be provided by setting back the front wall of the building to the required extent. On other streets, the building shall be set-back so as to be flush with the regular line of the street, if any.

(4) If the existing sanitary accommodation is inadequate by the standard of 1 W.C. for four families or being adequate does not exist on each floor, the owner shall provide the required accommodation on each floor. Any increased floor area or increase in F.S.I. required in this connection will not be objected to.

(5) The owner shall submit a joint agreement with the existing tenants what the latter have agreed to reoccupy the building on completion of repairs.

The above relaxation in the rigidity of the Development Control Rules is initiated to help the existing tenants of old buildings.

(8) Concessions of Availing of full or Partial F.S.I. if the land Falling in Roads etc. is handed over free

Extending concessions so as to reduce the cost of acquisition if the people whose lands ultimately can be merged in the Development Plan Roads or whose part of lands need to

surrendered because they are kept as reservations for public purposes in the Development Plan, so as to make the F.S.I. on the land thus merged available to them in full or in part, we could not only reduce the cost on account of acquisition but also spare the botheration of going through the circuitous, lengthy and elaborate procedure of acquisition under the Land Acquisition Act. Steps for doing this atleast in respect of lands falling in Development Plan Roads, link Road, etc. are afoot and co-operation from Government is also likely to be assured.

Once having made the relaxations which the community well deserves, any further dabbling with the plan should be avoided. Planning is an endless process and modifications become necessary at intervals of every few years but if such modifications on account of representations go on getting introduced at every stage, there will be no finality to any of the things and the implementing authority will find it well-nigh impossible to put the cherished dream of the planners in shape and form.

---



Seminar on  
Building Bye-Laws, Zoning and Sub-division  
Control

(March 11-12, 1969)

A Note on  
Housing and Building Bye-laws in  
Delhi

by

V.V. Bodas  
Architect Town Planner  
Delhi Development Authority

Indian Institute of Public Administration  
(Centre for Training & Research in Municipal Administration)  
New Delhi-1.

Seminar on  
Building Bye-Laws, Zoning and  
Sub-Division Control  
(March 11-12, 1969)

Zoning & Sub-division in Greater Bombay

by

V. D. Desai  
City Engineer, Municipal Corporation  
of Greater Bombay.

Indian Institute of Public Administration  
(Centre for Training & Research In municipal Administration)  
New Delhi-1.

Zoning & Sub-Division in Greater  
Bombay

In fact, after declaration of our intention to prepare a draft development plan in 1958, some sort of control on the lines of what was envisaged in our Development Plan recommendations was already started in the development activity. These controls tended to become more and more precise so that after the development plan and the Development Control Rules laid down thereunder were approved by the Corporation the controls so far as we were concerned became absolutely specific. The Development Plan recommendations as also the Development Control Rules did not undergo a substantial modification during the scrutiny at the Government level and what was finally introduced as a legal measure on February 9, 1967 was almost in conformity with what the Corporation had accepted. Some of the deviations which were further made tended to make rules more strict in respect of F.S.I. as F.S.I. came to be reduced in certain areas mostly in the city and that too in the southern most part where the existing development is already very intensive, or tended to remove concessions extended hitherto to areas like villages or Gaothans or also tended to have a dual control for restricting the density of population in the form of both the F.S.I. and also the tenement-per-acre rule - the latter not having been featured in the D.C. Rules approved by the Corporation. The last two years since the introduction of final D.C. Rules have revealed some of the basic shortcomings in the practical implementation of some of the provisions. We have also



taken measures to remove these shortcomings. Before dealing with both these, I am giving below the basic concepts underlying the formulation of the Development Plan. (1) Zoning:- It is a key-note of the Development Plan inasmuch as the growth of the city which has taken place earlier purely due to the exigencies of the circumstances which was definitely considered to be pre-judicial to the healthy growth of the city was decided to be done away with and specific users introduced in the various areas earmarked therefor. The area falling within the jurisdiction of the Municipal Corporation for Greater Bombay was thus divided into 10 zones with varying F.S.Is. and the tenement-per-acre rule for each one of them. Adequate reservations have also been made for public users which inter alia also include users necessary at Government and semi-Government level. The main zones are-

- (1) Residential;
- (2) Residential with shopping line
- (3) Commercial
- (4) Service Industries;
- (5) General Industrial Zone 1-1
- (6) Special Industrial Zone 1-2.

Specific use provisions have been made for each one of them and the placements of the various zones have been so made that need of the community in all the spheres can be met in full without long distance travelling being involved.

Any plan for its successful implementation must have the following basic characteristics:

- (1) It should be capable of being implemented without putting an undue financial strain on the implementing authority.
- (2) It should aim at solution of the basic problems confronting the city without making the things worse in any way by introducing rules etc. which the people will have a basic tendency to violate.
- (3) The essential and basic needs of the community should be reflected in the plan and therefore the people should feel that it is their own plan meant for their general betterment and good and should have the feeling of involvement and complete participation in its implementation.

The last two years of the functioning have exposed some of the shortcomings either in one or more of these areas and we have taken steps to remove some of them and measures for redressing a few others need to be taken at different levels. I have given below these in greater details:-

- (2) F.S.I.- The concept of F.S.I. is co-related with the idea of controlling densities of population. What in fact is controlled is the floor space and since the floor space is co-related with the occupancy rate, indirectly we control the densities of population. If however our presumptions of occupancy rate are not borne out in actual practice, the basic idea of controlling the densities of population by introducing f.s.i. control will be vitiated. In respect of non-residential buildings, the F.S.I. control does control the floor space necessary for giving certain services like commerce, industry, service industry etc. to the people who depend on

these areas for these services. With the introduction of the Development, Plan and on account of our failure to press our claim to recover betterment claims which in fact is the key-note of implementation of the proposals embodied in the Development Plan (of course by launching Town Planning Schemes where this principle is legalised) there was a general spurt in the land values. The cost of construction for structures meant for various types of users being almost identical, structures meant for purposes of education, public health, religion etc., social and public institutions found it extremely difficult to launch development. This difficulty was overcome by introducing amended rule 10(2) whereby with the previous approval of Government, the Floor Space Indices specified may be permitted to be exceeded, in respect of buildings of Educational and Medical Relief Institutions and Government and Semi-Government Offices and luxury hotels and in respect of any building on the top of which any revolving structure is to be constructed as a place of public entertainment or amusement.

(3) The Special Consulting Surveyor to the Government of Maharashtra who was assigned the work of scrutiny of the Development Plan submitted by the Corporation to Government for approval had all along felt that control on densities would not be complete unless it is coupled with the control on density with tenement-per-acre rule. The tenement-per-acre rule envisaged even a smallest tenement of 400 Sft. the cost or rent of which was not within easy reach of an average middle class or poor class man to which class 90% of the

population of the city belongs. Obviously, the tenement per-acre rule was either likely to be flouted by introducing occupancy rate in excess of what was sanctioned or if observed in letter and spirit would completely oust any provision in the private sector for housing meant for the middle and poor class. The tenement-per-acre rule was also therefore sought to be appreciably relaxed.

(4) Certain areas in respect of features like additional stair-cases provided beyond required, extra fast moving lifts in multi-storeyed buildings, plazas for the general recreation of the occupants of the building including their children, etc., lift rooms at intermediate floors, weather maker rooms, areas required for equipments of fire-fighting, etc. were sought to be deleted from the computation of the F.S.I. calculations whilst working out Floor Space Index.

(5) Layout and Sub-divisions:- It is obligatory under Development Control Rules to submit a layout showing internal roads, access roads, 15% or 10% (as the case may be) recreation ground, keeping vacant the sites earmarked for public users in the Development Plan etc. Large chunks of land vesting in private ownership which have not yet been incorporated either in the Development Scheme or the Town Planning Schemes which follow as a corollary of the Development Plan were sought to be developed by submitting layout and/or sub-division proposals. In fact, this is analogous to the development undertaken by the Improvements Committee of the Corporation by launching more and more Improvement

Trust Schemes for developing maiden chunks of lands though not on as massive a scale as is being done by the Corporation. Whereas however, development by way of roads, sewers, Storm Water Drains, water mains, gardens, schools, markets etc. is a 'must' under the development schemes, this essential obligation was entirely ignored by private developers as a result of which a lot of hardships is caused to the members of the public who either go to stay in such developments as tenants or even as landlords by buying one of the sub-divided plots and developing it for their use later. This control is sought to be made more rigid as invariably high prices are charged for individual plots considering internal development sought to be made under the layout proposal. It is not only the appreciated value of land but the implementation of the proposals which appreciates the value which is of utmost importance from the point of view of the Corporation.

(6) Slum Clearance:- The late Prime Minister of India first introduced the concept at the political level of providing providing housing comprising of atleast two rooms. It was very much talked of and stressed in the various committees appointed by the Government of India for promoting public health which includes physical, mental and spiritual health also. However, measures for entertaining this basic need to the suffering slum dwellers were not launched on the necessary scale. The present financial conditions pose one problem before us whereas against complete lack of facilities whether we should aim at attaining standards which we cannot attain on account of financial shortage of whether we should

go in for relaxation of standards so as to make it capable of being practically attainable without simultaneously making them prejudicial to the basic standards of health. If 10 people huddled together in a small 100 Sft. room in an old dilapidated building situated in an environment with lack of adequate light and ventilation can be accommodated in a tenement much better than the previous one, some compromise on the standards could be recommended and accepted without insisting on the 232 Sft. tenement with an independent sanitary accommodation, the number of which that can be provided both by Government and the Corporation is but too small with due consideration to the financial position in which these public bodies are placed to-day.

(7) Repairs to old Buildings:- Many cases have been brought to our notice where, while carrying out the repairs to buildings in pursuance to notice under Section 354 of the Bombay Municipal Corporation Act owners have chosen to repair the building amounting to almost re-construction of the buildings in contravention of the Development Control Rules. In view of the acute housing situation in the City which will definitely continue for some years, such wholesale reconstruction is permitted subject to compliance with the following conditions:-

(1) A notice under Section 354 must have been served on the building for structural repairs.

(2) The building shall be predominantly a residential one i.e. more than 75% of the floor area shall be in use for residential purposes which fact must be supported by the

owner submitting detailed floor plans and section of the building indicating the present users, arrangement of partitions, sanitary accommodation etc.

(3) If the building is situated on a street which is already more than 60 ft. in width or a street for which regular lines for 60 ft. width have been prescribed, front open space required under Development Control Rules shall be provided by setting back the front wall of the building to the required extent. On other streets, the building shall be set-back so as to be flush with the regular line of the street, if any.

(4) If the existing sanitary accommodation is inadequate by the standard of 1 W.C. for four families or being adequate does not exist on each floor, the owner shall provide the required accommodation on each floor. Any increased floor area or increase in F.S.I. required in this connection will not be objected to.

(5) The owner shall submit a joint agreement with the existing tenants what the latter have agreed to reoccupy the building on completion of repairs.

The above relaxation in the rigidity of the Development Control Rules is initiated to help the existing tenants of old buildings.

(8) Concessions of Availing of full or Partial F.S.I. if the land Falling in Roads etc. is handed over free

Extending concessions so as to reduce the cost of acquisition if the people whose lands ultimately can be merged in the Development Plan Roads or whose part of lands need to

surrendered because they are kept as reservations for public purposes in the Development Plan, so as to make the F.S.I. on the land thus merged available to them in full or in part, we could not only reduce the cost on account of acquisition but also spare the botheration of going through the circuitous, lengthy and elaborate procedure of acquisition under the Land Acquisition Act. Steps for doing this atleast in respect of lands falling in Development Plan Roads, link Road, etc. are afoot and co-operation from Government is also likely to be assured.

Once having made the relaxations which the community well deserves, any further dabbling with the plan should be avoided. Planning is an endless process and modifications become necessary at intervals of every few years but if such, modifications on account of representations go on getting introduced at every stage, there will be no finality to any of the things and the implementing authority will find it well-nigh impossible to put the cherished dream of the planners in shape and form.

Indian Institute of Public Administration  
New Delhi

Centre for Training & Research in  
Municipal Administration

LIBRARY

Acc. No. D645 .....

Date 25.7.69 .....

T\*